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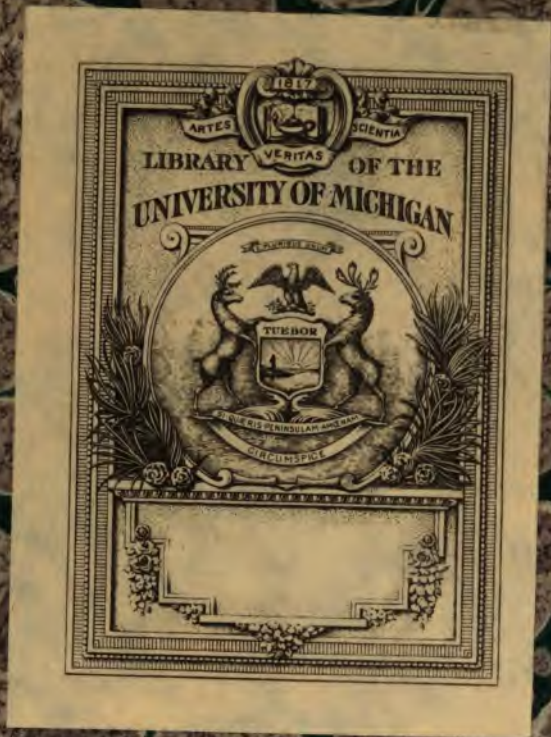
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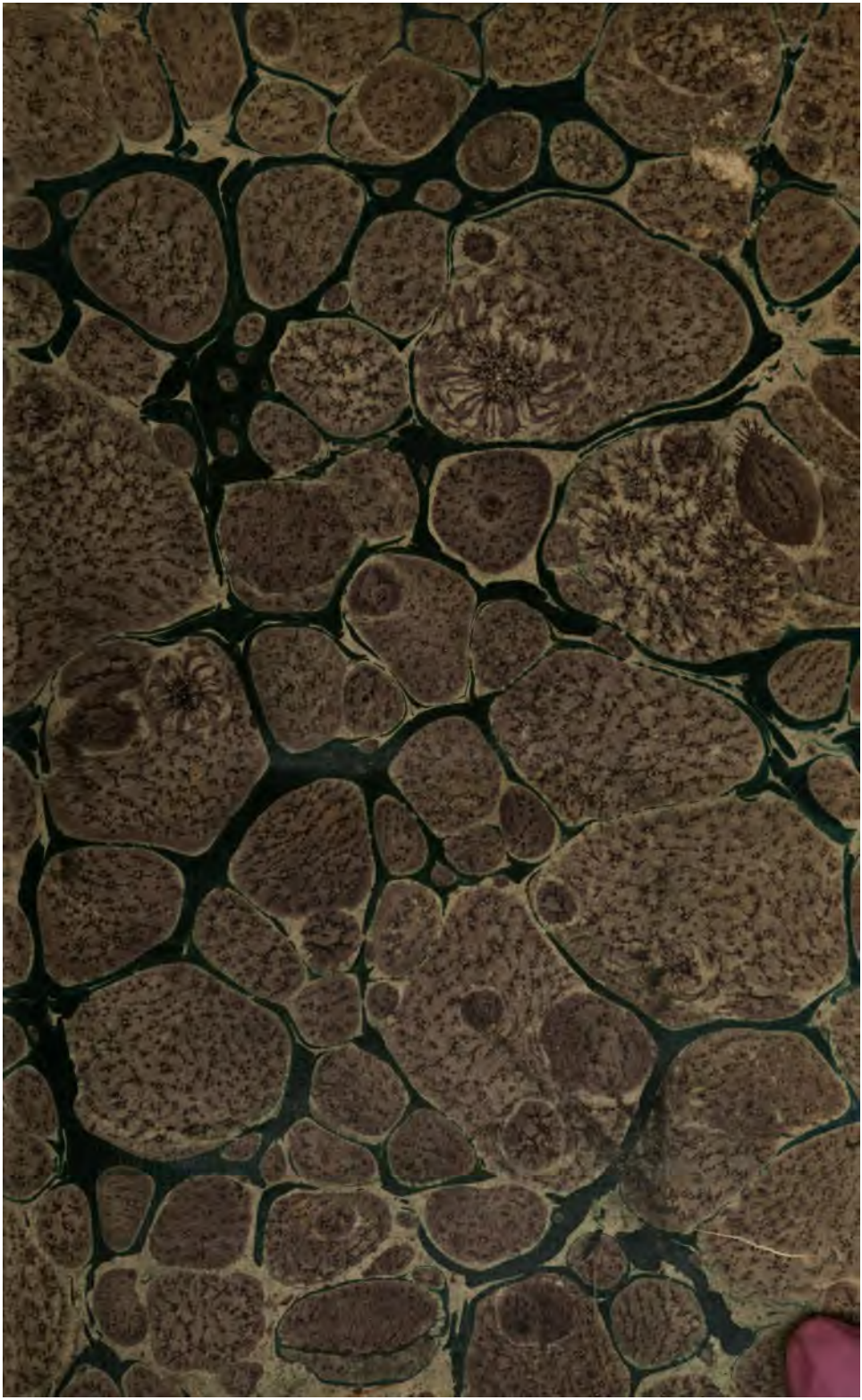

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TRACTS

RELATING TO

THE CORN TRADE

AND

CORN LAWS:

INCLUDING THE

SECOND REPORT

ORDERED TO BE PRINTED BY THE TWO HOUSES OF PARLIAMENT.

BY

WILLIAM JACOB, Esq., F.R.S.

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PREFACE.

THE chief inducement to the following publication has been a desire that a practical view of the past and present state of the Trade in Corn may be taken by individuals who may not have easy access to the papers printed by the two Houses of Parliament. My former Report was reprinted in most of the daily journals, and circulated to a vast extent; but a few parts only of the Appendix were generally made known. In this second Report, the statements in the Appendix are of so much greater value than any composition of my own, and of so much greater value in a comparative view than those of my former Report, that no one can be fairly in a state to judge of the merits of the question which at present engages attention, and must always be of importance, without having them at hand for the purposes of reference.

This publication has given me an opportunity of adding a few Notes, which might not have been appropriately inserted in a paper presented to a public board, and of intimating facts or opinions on some

subjects which had presented themselves after the Report was finished.

The paper, respecting the Trade of the Black Sea was written a year ago, and read in manuscript within a small circle. I have been induced to print it now, partly from the wishes expressed by some who had then read it, and partly because, in his last edition of "*Nouveaux Principes d'Economie Politique, ou de la Richesse dans ses Rapports avec la Population,*" M. Sismondi has given a view of the agriculture of that part of Europe, somewhat at variance with the representation made of it to myself by the proprietors of that district, with whom I had communications when I was in Poland, in 1825. M. Sismondi seems to have overlooked the great impediment to cultivation on the Steppes, arising from the want of water, and has not taken an exact and accurate view of the variation in the prices of Wheat at Odessa; and, in his remark on the tenure of land in Bessarabia, seems not to have appreciated the trifling influence which the wheat of that district can have on the market of Odessa. The high character which M. Sismondi so deservedly sustains wherever his writings are known, must make any remarks of his of sufficient weight to be noticed, and any slight error of sufficient importance to be corrected.

If the sketch respecting the cultivation of inferior soils by pauper labourers should engage any attention; and, especially, if it should lead to an experimental

trial in this country, of the plan so successfully carrying on in the Netherlands, I shall watch its progress with the most intense anxiety, and be happy to contribute, as far as my abilities can extend, to promote the object.

To those who know the enlightened, manly, and truly liberal feelings of the present as well as of the late President of the Board of Trade, any declaration I can make will appear superfluous. I must, however, in justice, here state, that if any errors are to be found in my Report in the facts, or any fallacious deductions are made from them, or whether I am right or wrong in the views I have taken of the causes of agricultural suffering, I am alone responsible; for I have received from neither of those Right Honourable Gentlemen, nor from any public officer, the smallest bias, but have been left to my own observations, totally uninfluenced by any past reasonings of theirs, or by any prospective plans which they might have deemed necessary to recommend to the consideration of the two Houses of Parliament. In my judgment, the benefit of any law that may be enacted must chiefly depend on the tendency it may have to restore that fair and honest trade of speculation in Corn, by which alone the due price between the producer and consumer can be equitably adjusted; the destruction of which trade has been the chief cause of the depression of the agricultural proprietors and occupiers, both in this country and on the continent.

I cannot but think such trade, carried on as formerly, and influencing all engaged in it, would keep the price of Corn, commonly, at a remunerative rate, which it has not been of late years; and, in case of a deficient harvest, would prevent it from attaining the high rate which it must reach in the circumstances in which the whole of Europe has been placed by the various restrictive laws of the several Governments.

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REPORT

PRESENTED TO THE LORDS OF THE COMMITTEE OF HIS MAJESTY'S PRIVY COUNCIL FOR TRADE,

RESPECTING THE

AGRICULTURE AND THE TRADE IN CORN,

IN SOME OF THE CONTINENTAL STATES OF NORTHERN EUROPE.

By WILLIAM JACOB, Esq.

COMPTROLLER OF CORN RETURNS.

REPORT.

My Lords,

In obedience to your Lordships' instructions, as communicated to me by Mr. Lack, under date of the 15th August, I proceeded, without delay, to the Continent. I first reached the kingdom of the United Netherlands, passing, without much stay, through Rotterdam and Amsterdam. As the provinces of North and South Holland, in which those cities are situated, produce but little Corn, I hastened over them, and Utrecht, Guelders, Friesland, Overyssel, Drenthe, and Gröningen. From thence I entered the kingdom of Hanover, by the province of East Friesland, at Embden; and then proceeded through the Duchy of Oldenburg to Bremen, and from that city across the Hanoverian province of the same name, to Hamburg. Route.

I travelled from Hamburg, through the Central and Southern parts of the Duchies of Mecklenburg Schwerin and Mecklenburg Strelitz, and by the shores of the Baltic, till I reached Lubeck.

As that part of Germany consists chiefly of arable land, and contains a population almost exclusively agricultural, though I visited the cities of Ratzeburg, Schwerin, Güstrow, Rostock, and Wismar, my time and attention were chiefly directed to the rural affairs of the district, to which I was invited by the reported extent of its surplus

Route. corn, by the boasted superiority of its agricultural management, and by the many intelligent cultivators to whom I had been amply supplied with means of intimate communication.

From Lubeck I passed to Copenhagen, by the Baltic Sea; and from that city, travelled through the islands of Zealand and Fünen to Jutland, and then through the other continental provinces of the Danish dominions—viz., Sleswick and Holstein, till I again reached Hamburg. I pursued my journey from Hamburg, by passing through the kingdom of Hanover, in a southerly direction, by Zell, to the capital; and thence by Einbeck, Göttingen, and Münden, till I entered the principality of Hesse Casel. Passing through that country, and part of the dominions of Hesse Darmstadt and Nassau, I reached the Rhine at Coblentz, and from thence hastened on to Brussels.

The alternate year, for conducting the government of the kingdom of the United Netherlands at the Hague, had commenced when I reached Brussels; and every person and document, from whom information was likely to be obtained, was removed to that city. I was therefore induced to proceed there a second time. From thence, by Antwerp and Ghent, through the most productive portion of the kingdom, I reached Calais, and returned to London.

State of the Roads. The condition of the roads, in the countries I passed through, would scarcely deserve notice in this Report, if no other consequence were attached to it, than the annoyance to the traveller from the slow pace at which he advances, and the lengthened halt at every change of horses; but, as connected with the subject of the cost of supply in corn, it becomes of importance; and still more so, when the parts of a country, in which the greatest

surplus of Grain is produced, are very distant from the ports at which it can be shipped to other countries. State of the Roads.

In the eastern parts of the kingdom of the Netherlands, with the exception of one stage from Assen to Gröningen, the whole of the roads from Deventer to the frontier are nearly in a state of nature; consisting of deep sand, without the aid of any hard substance to improve them. Beyond the frontier, in the Hanoverian territory, the soil becomes gradually more compact; and, after passing the Ems, it changes to a heavy clay. Those roads are equally left to the operation of the elements; when wet they are scarcely passable; when becoming drier, they are stiff, and require great exertions from the draft cattle; and, even when quite dry, in the summer, though better for travellers, they are full of holes, formed by the water in hollow places.

This bad state of the roads, though it adds to the expense of export, has not so great an influence in Gröningen and Friesland, as in Mecklenburg and Holstein. The chief kinds, or indeed the only kinds, of grain, of which those two districts have a surplus, are oats, and a small portion of beans. These are raised on the marsh lands, on the borders of the sea-shore, or on the sides of the rivers; so that there is scarcely any quantity requiring land carriage beyond the distance of fifteen or twenty English miles.

In Mecklenburg the roads are equally neglected, being either deep sand or loamy clay, both requiring great exertions to draw wheel-carriages, and both equally left in a state of nature.

As the best wheat and rye lands are at a considerable distance from the shipping-ports, the cost to the grower is generally enhanced, increasing, according to the distance, in a compound ratio. Some of the best farms are

State of the Roads.

distant from any shipping port, forty, or even fifty English miles. The time when horses can be best spared to draw the corn to a port is the winter, when the roads are frozen; but even then, they are hardened into a rough state; from their great breadth, are never well and equally trodden; and, from the variable nature of the climate, in the coldest winter, sudden thaws, with rain and sleet, succeed to as sudden frost and snow.

In Denmark, the main-roads over the islands are very good; but in the continental provinces of Jutland, Sleswick, Holstein, and Lauenburg, they are in a most neglected state, which renders travelling tedious, even in the most favourable weather. The fertile province of Holstein supplies the greater part of the corn that is exported. The eastern and western sides of it are bordered by the Baltic Sea, or by the river Elbe; but it contains a large extent of productive land in the middle district, from whence corn must be conveyed, by these very bad roads, to a distance of forty or fifty English miles, before it can be shipped. Much of it is carried a still greater distance; for that which grows nearest to the Baltic, finds a better market at Hamburg than at Kiel or Lubeck. A gentleman with whom I had the pleasure to become acquainted in Holstein, who possesses a fine estate about twenty miles from Kiel, thirty from Lubeck, and more than sixty from Hamburg, told me that he commonly sent his waggons loaded with corn to the latter city. I found some other proprietors and cultivators in that neighbourhood, who adopted the same practice. They were induced to it, from the freight and insurance being lower from Hamburg than from the Baltic ports, but, chiefly, because from that city it could be sent with less delay to any distant markets, that might, for a short period, open themselves for their reception.

State of the Roads.

The state of roads in countries which export corn, deserves attention, when calculating the cost of production, less on account of the slow pace of travelling on them, than on account of the small quantity of corn which each team of horses can draw. Thus, for instance, in England, the usual load of a waggon with four horses is ten quarters of Wheat, weighing about 4800 lbs., whereas, in the districts, the roads of which are noticed in this Report, the usual load is not more than half that weight.

Calculation of the Cost of Land Carriage on Corn.

As this branch of the cost of production is of vast importance in times of scarcity, when very distant land-carriage to the water-side is required; and, as the principles which regulate it are applicable to all such countries, and to all the several kinds of grain, it may not be amiss here to introduce the calculation furnished by a very enlightened and accurate gentleman, whose personal acquaintance I had the pleasure to make during my journey, but whose character and attainments had been previously known to me. It is sufficient for the present purpose, to remark, that this proprietor and excellent cultivator of a good estate in Mecklenburg, gives the following calculation, grounded on the real cost of his expenses of conveyance, on an average of five years.

The estate in question is distant five German, or twenty-four English miles, from the market-place to which its surplus corn must be carried.

The regular load on this estate for a waggon with four horses is 2400 lbs. weight, or 40 Rostock sheffels of rye; being nearly equal to forty-five imperial bushels, of 53 lbs. weight; but for the subsistence of the cattle backwards and forwards, 180 lbs., or about three bushels and a half of the corn must be carried, and deducted from the quantity to be sold, which will then be forty-one and a half bushels.

Calculation of the Cost of Land Carriage on Corn.

The expenses in money, on each journey, on an average of the last five years, for the keep and wages of the men, and various small incidents, is found to amount to 4*s.* 8*d.*; and the value of the corn carried for the horses, at the price of the place where, if not consumed, it would have been delivered for sale, taken at 3*s.* the bushel, amounts to 10*s.* 6*d.*; thus making a deduction of 15*s.* 2*d.* on forty-one and a half bushels.

	s.	*d.*
The amount, then, of the forty-one and a half bushels, at 3*s.* is - - - - -	124	6
Cost of conveyance, in money and corn - -	15	2
Net produce -	109	4

The expenses of conveyance thus amount to somewhat more than thirteen per cent. on the sum which the cultivator receives for his rye.

No additional charge is made in the statement for the wear and tear of carriages, harness, or cattle, nor any for the loss of the manure made by the horses, for the interest on the capital which is invested in cattle and implements, and gradualy diminished in value; nor is any notice taken of the expense of maintaining the horses and men for those portions of their time when, by inclement weather, or other circumstances, they are doomed to remain in a state of inactivity.

For a journey of ten German, or forty-eight English miles, as it would occupy twice the time, the food to be carried for the horses would be 360 lbs. weight, and the quantity of corn to be actually sold would be only 2,040 lbs., or thirty-eight bushels. The expense of the men would be doubled; thus the sale would be

	s.	*d.*
Thirty-eight bushels, at 3*s.* - - - -	114	0
Cost of conveyance - - - -	30	4
And the net produce -	83	8

Calculation of the Cost of Land Carriage on Corn.

If the distance to the market be still further extended, it will appear, by calculation, that the net produce is gradually diminished with the distance, till it finally disappears, and the transport of grain must consequently cease.

Supposing five hundred bushels of corn be worth 3*s.* per bushel at the market, or 1,500*s.*

The net produce would then be thus, after the conveyance to the following distances :—

5	German,	or	24	English	Miles	1,313	net produce.
10	-	-	48	-	-	1,136	—
15	-	-	72	-	-	968	—
20	-	-	96	-	-	809	—
25	-	-	120	-	-	656	—
30	-	-	144	-	-	512	—
35	-	-	168	-	-	374	—
40	-	-	192	-	-	242	—
45	-	-	216	-	-	116	—
48	-	-	240	-	-	0	—

This calculation would lead to the same conclusion, if, for a journey of twenty-four English miles, it were assumed, that fifteen waggons, each carrying 2,400 lbs. of corn, were attended by a sixteenth, carrying likewise 2,400 lbs. for the subsistence of the cattle, instead of each waggon carrying the provender for its own team.

This digression respecting the rate of expense on the conveyance of corn, founded as it is on the practical experience of a very accurate person during a series of years, though it may be tiresome, can scarcely be deemed improper, because the countries which afford the largest surplus of grain, are as ill accommodated with roads as those of East Friesland, Mecklenburg, Sleswick, and Holstein. It serves also to show the cause of the vast difference in price observable between some districts and and others of the extended empire of Russia. It may assist us to account for the famines which, in past periods, have desolated some parts of the interior of India, and

Calculation of the Cost of Land Carriage on Corn.

other portions of the world; and it affords a practical reason for the people of Andalusia in Spain, drawing their supplies of wheat and flour from the United States of America, when wheat was there at 4*s.* 6*d.* per bushel, whilst on the plains of Castile it was not worth more than 1*s.* 6*d.* the bushel.

Although it may be most advantageous to take a view of the agricultural state of the kingdom of the Netherlands in a mass, in a later portion of this Report, yet some notices of a local nature may here be introduced.

Utrecht is both a rich and fertile province, contains numerous manufacturing and mercantile establishments, and a population, according to the recent returns, of one person to $2\frac{4}{10}$ acres. There are, however, in this portion of the kingdom, considerable tracts of land that could only be cultivated from their being distributed among small occupiers, who subsist, in the condition of day-labourers, by performing the whole of the requisite work with their own hands. Between the cities of Utrecht and Amersfort there is a considerable extent of such land, which, I was informed on the spot, had been recently let at four stivers the morgen, or little more than two-pence the English acre. Near to Appeldoorn, and around the royal domain of Loo, widely-extended heaths are bringing gradually under cultivation; and numerous small dwellings, with trees, gardens, and inclosures around them, in various degrees of progress, show clearly that the population is rapidly increasing, and is driven for subsistence to the laborious toil of bringing into cultivation portions of the soil, which, for many years, will be unable to do more than yield, in return for the labour that is bestowed upon them, scanty crops of potatoes, buck-wheat, and oats; scarcely equal to supply the urgent demands of those who cultivate them.

I heard of various and extensive operations and projects for bringing into cultivation the inferior soils, with scarcely any expectation of profit, and with no prospect of extracting from them surplus produce, but merely with the view of providing some employment for the poor, which may lessen the weight of expense which now arises from their increasing numbers. With this object rural depôts of mendicity and orphanism have been established in several parts of the kingdom, on barren heaths, especially a very extensive one on the spot called Frederick's Ord, where the four northern provinces of Overyssel, Drenthe, Friesland, and Gröningen, approach each other. Calculation of the Cost of Land Carriage on Corn.

Although these establishments are highly interesting to the philanthropist and the statesman, as well from the benevolence of the design, as from the economy and humanity with which they are administered, as they are not likely in many years to produce any surplus of corn, it would lead too far from the especial object of my journey, to do more than merely to notice them in this Report.

It would have been difficult, had time been allowed for the investigation, to have generalised the value of land, or the average rent that is paid for it, in a district where its quality varies so excessively as in Utrecht. The low rent of the worst land has been noticed, and some judgment may be formed of the best, by an account communicated by the proprietor of one estate. It is in a rich district, between Utrecht and Rotterdam, consisting of about one hundred and sixty English acres, one half of good meadow, and one half arable, capable of bearing, on an average of years, from six to seven quarters of Oats to the acre, and a proportionate quantity of Wheat or Rye, when those crops are cultivated. It had cost, two or three years ago, 42,000 guilders, or 3,500*l*. It Value of Land.

Value of Land.

was let on lease for six years, with strict covenants as to the rotation and cultivation, for 1,200 guilders, or 100*l.*, the proprietor paying the land-taxes, amounting to 160 guilders, or about 13*l.* 5*s.*

The proprietor had reserved for his own use a house with garden and orchard, the right to the fishery and chase, and the cuttings of the willows that border the inclosures. These he estimated at one-fourth of the value of the whole purchase, thus leaving for the capital invested on the land alone 2,650*l.* From this capital he draws an income of 86*l.* 15*s.*, or about three and one-quarter per cent. per annum. In cold climates, the necessary buildings for carrying on agriculture bear a much greater proportion to the value of the land than they do with us, and the estate in question must have been let to an occupier who had the requisite buildings on an adjoining estate, as no other would have taken it without house, garden, and especially orchard.

Rates of Labour.

The agricultural labourers are in general paid in money, without food, house, or fuel, at the rate of about 16*d.* a day in summer, and from 10*d.* to 12*d.* in winter. As in winter they require warm clothing and much fuel, they are chiefly subsisted on potatoes and a kind of gruel (*brey*), made of oats or rye, and seldom more than a small portion of salted meat once a week. The bailiff of one estate, of about two hundred acres, was boarded and lodged by the proprietor, and paid 20*d.* a day in summer, and 10*d.* in winter.

Gröningen, Overyssel, and Drenthe

The other three provinces which I passed through are much less thinly peopled than either Utrecht or the southern parts of this kingdom. The degree of density of population is in the following order, according to the last official accounts, and, consequently, comprehends the great increase which has taken place between the years

1815 and 1825:—Gröningen has one person to three and one-sixth English acre; Overyssel, one person to five and one-tenth; and Drenthe, one to nine and two-tenths. The productiveness is nearly in the same degree as the density of population. Gröningen exports much butter and cheese, but very rarely any corn, except a few oats and some buck-wheat. It also furnishes considerable quantities of rape-seed and rape-oil and cake. Overyssel does not grow more corn than it consumes; the chief produce is buck-wheat and rye. Butter, and an inferior kind of cheese, is made beyond the demand of the inhabitants, and is exported. Drenthe, though it consumes but little corn, yet rarely grows sufficient to supply its own wants. The great mass of the people in these provinces subsist almost exclusively on potatoes, which are abundantly cultivated on the extensive heaths which intervene between those marshy borders of the rivers where the cows, which afford butter and cheese, are pastured. The chief labour of the people is that of furnishing the turf, with which these provinces supply the more wealthy and populous districts of the kingdom. This employment is maintained by the numerous canals cut to the turf lands; and the number of boats passing to and fro with that fuel, display almost the only observable kind of activity. The cultivation is chiefly carried on by small proprietors or renters, who live in the most parsimonious manner upon their scanty crops of buck-wheat, rye, and potatoes, with some assistance from the dairy, either in cheese or bacon. The value of land in districts, comprehending small tracts of good water-meadow, and large extents of sandy-heath, with all the gradations between the two, must vary much. That part which is under the plough is rented at all prices, from fifteen to thirty-six guilders the Dutch morgen; or, taking the

Gröningen, Overyssel, and Drenthe

Rent of Land.

Rent of Land.

guilder at 20*d.* sterling, and the morgen at two and three-twentieths of an acre, from 11*s.* 6*d.* to 26*s.* the acre. There is, however, but a small extent of land coming within this description. The chief part of the inhabitants, exclusive of the two cities, seem to be seated in the heaths near the canals, and to cultivate their small portions of the soil by human labour alone. I was told that the rents for these small allotments, before cottages were built on them, and when in a state of nature, was as low as from threepence to sixpence an acre.

Near the cities of Gröningen and Zwolle, the best meadow land is sometimes let as high as one hundred and fifty guilders the morgen, or about from six pounds to six guineas the acre.

The wages of day labourers in agriculture in these provinces, I found to be commonly, when they were neither supplied with dwellings, fuel, nor food, from 14*d.* to 16*d.* per day in summer, and from 8*d.* to 10*d.* in winter.

During the periods of hay and corn harvest, great numbers of Germans, chiefly from Westphalia, come into this country to work. Without such assistance, those occupiers of land who are above the condition of mere labourers, would find a difficulty in securing their crops. In fact, as may be presumed in a country of small occupiers, the number of mere labourers, skilful in husbandry, is very inconsiderable. Such labourers are as much bargemen and sailors as agricultural husbandmen. This is even apparent in their dress, for the ploughmen, waggoners, and others, are almost universally equipped with blue jackets and trowsers, instead of round frocks.

As it was manifest, both from observation and the opinions universally given, that these northern provinces afford no surplus of corn, they had too little connexion with the chief objects of my journey, to allow of much

time being allotted to their examination. I remarked that, everywhere near the towns, the cultivation of culinary vegetables and fruit was carefully attended to; that near the villages, the extent of land growing potatoes was very great, and that appropriated to turnips inconsiderable; whilst no carrots were to be seen growing in the fields, as they are in the southern divisions of the kingdom. Rent of Land.

The demand for oats in England had exhausted the stocks in the southern provinces of the Netherlands, and their supplies had been drawn from the northern districts. They too had become exhausted, and it was with difficulty, and by paying an enormous price for each small quantity, that the postmasters and other persons keeping horses in high condition, could obtain the necessary supply. Scarcity of Oats.

One postmaster, who kept twenty-four horses, and allowed to each about a bushel and three pecks of oats weekly, complaining of the low rate of posting at present, stated, that he had with much difficulty been able to collect a quantity equal to ten quarters, for which he had paid 23*s*., being more than double the current price of the former years, when the rate of posting had been fixed.

At another town, Winshotten, near the frontier of Germany, I was told the price had risen still higher, and that it was with difficulty any could be procured. The same scarcity was observable in beans. There was plenty of green clover to cut, for the subsistence of such horses as were employed in husbandry, but all who kept them, either as carriers or barge masters, or for the purposes of luxury, were really distressed for horse corn, as well from the scarcity as from the high price.

As far as my observation enabled me to judge, when compared with opinions of the cultivators, with whom I had

Scarcity of Oats.

opportunities of consulting, the harvest, then in the midst of being secured, was only a moderate one. The wheat was reported to be a fair average, but a very small proportion of the land is appropriated to that grain. Rye, which is the main support, was below an average crop, and not of good quality. Barley was, like rye, below the average, and oats, as far as they were cut, deemed to be worse than barley. The beans were almost uniformly very deficiently podded, and believed to be worse than even in the last year.

East Friesland, in the kingdom of Hanover.

The province of EAST FRIESLAND, in former times an independent state, afterwards, incorporated with the Prussian monarchy, and in consequence of the negociations at Vienna, at present forming part of the kingdom of Hanover, is chiefly important to the subject of this Report, on account of the great quantity of oats which it usually yields, and from the supposed great surplus of that grain it can annually furnish for exportation.

Extent.

The whole extent of the province contains about seven hundred thousand acres. It is bounded on the east, north and west sides by the sea, or salt estuaries. On the shore is a border of land in pasture, or in cultivation, varying from one to about five miles in breadth; but near Embden spreading out to near fourteen miles, which is highly productive. This like, indeed the whole province, is defended from the sea by high embankments, constructed and kept in repair at an enormous expense, whilst the land is drained by numerous broad ditches, below the level of the sea at high-water, but above it when the tide is out. It can thus be drained in

some measure by powerful flood-gates, which open and shut by the flux or reflux of the tide.

Embankments.

The embankments have been, on several occasions, found ineffectual for protection against the sea, and several most calamitous inundations have been recorded, by which the whole country has been covered with sea-water to the depth of many feet. None of those inundations have been more disastrous than the recent visitation, in the beginning of February 1825, when all the houses in the villages near the embankments, and even the cities of Embden and Leer, were immersed in the waves, to the depth of several feet. Although not many human beings were drowned, the loss in cattle was found to be eighty horses, four hundred cows, and three thousand sheep, besides pigs and poultry; and the damage to corn, furniture, barns, houses and implements, was estimated to amount to 40,000*l*. The sympathy that was very extensively excited did much to alleviate the suffering; but the province still severely feels the effects of the visitation, and can scarcely ever be freed from the apprehension of similar catastrophes.

The annual expense of maintaining the embankments, falls on the border-land which is nearest to them, estimated to be about two hundred and twenty thousand acres. On an average of twelve years, in which no inundation had occurred, the expenses of the dykes amounted to about 16,000*l*. sterling, or nearly 1*s*. 6*d*. the acre. In years following such inundations as those of 1717, 1736, 1751, 1756, 1775, 1791, 1817, and 1825, the extra expense of repairs, and of heightening the banks, have been felt as a burden on the land, which, fertile as it is in itself, has rendered some of but little intrinsic value.

This is sometimes the case, because in levying the contribution, the lands nearest the embankments are

Embankments.

charged the highest; and if they should be of inferior natural fertility, or be in an exhausted state, they are rendered nearly worthless.

The line of embankments extends more than one hundred and sixty miles on the coast; it is divided into thirty-six districts, over each of which, one or two proprietors of at least twenty acres of land, have the supervision; for which they are exempted from their share of the expense of construction and reparation. An annual body of commissioners is appointed by the government, to direct the collection and application of the necessary sums.

It is difficult to estimate what the expense to the land is, after such calamities. I heard complaints of the weight of the contribution, as well as of the mode of its repetition, but no precise facts, on which to build certain conclusions; but, as far as I can venture to estimate, I should calculate the extra expenses of embankment, which arise from such casualties, as have occurred eight times within the last ninety years, to amount to, at least, 1*s.* 6*d.* the acre annually.

In most cases the ordinary and extraordinary cost of embanking is paid by the occupier, when the land is let; but, in some instances, it is deducted by the proprietor from the rent. In either case, however, it equally forms one of the costs of production.

Division of Landed property.

In the district under consideration, as indeed in the whole of East Friesland, although some extensive domains belong to the crown, and a few noblemen, Count Munster and others, have large estates; yet the far greater portion of the land is cultivated by small occupiers, mostly proprietors also, who work with their families in the fields, and can rarely have occasion to pay any thing to day-labourers. Some of those farms

are less than ten acres, more under twenty, but the greater part of the whole province is occupied in portions, between forty and one hundred and forty acres. Division of Landed Property.

Beyond the narrow border here noticed, there is a second circle of permanent pasture, and some light arable land of tolerable fertility, consisting of about two hundred and twenty thousand acres; in which division is raised the greater part of the corn, except oats, with much buck wheat and potatoes; but the interior of the province, though but a few feet elevated above the low border, is in a great degree either an extended heath, or mere barren land. These lands, denominated (*heide*) heaths, and (*hochmoor*) high moorlands, amount in the twelve bailiwicks, into which the province is divided, to about two hundred and forty thousand acres.

If the whole province be thus stated, it will be as near an approximation to accuracy as can be hoped for:— Classification of soils.

	Acres.
Marsh land, constantly in grass - - -	105,000
Marsh land, occasionally broken up and ploughed	120,000
Arable land, mostly sandy loam - - -	220,000
Barren turf, and moor lands - - - -	240,000
Sites of towns, rivers, canals and ditches, about -	15,000
Total -	700,000

It may be remarked, that there are scarcely any woods, very few trees, and the fruit trees that have been planted, are by no means productive. The fuel used is either turf dug on the moors, or wood brought down the Ems from the province of Westphalia.

As East Friesland feeds from eighty to one hundred thousand cows, either for the dairy or for fattening, we may calculate that they must consume the whole of the produce of the one hundred and five thousand acres of the permanent marsh pasture. There will then remain for the subsistence of about one hundred and forty thousand Appropriation of the Products of the Soil.

human beings, and from twenty-two to twenty-five thousand horses, with about the same number of sheep, and eighteen thousand pigs, three hundred and thirty thousand acres of land, of which one-third is fairly productive, but needing fallowing and manure, and the other portion varying gradually from medium to the most sterile that will pay for the labour of cultivation. Whatever produce remains, after providing for them, forms the annual exporting power of the province.

Expensive Buildings on Farms.

One expense on cultivation is the erecting and keeping in repair very extensive farming buildings. The towns and villages are all built on elevations, which appear to have been thrown up by the force of the sea, probably before any embankments were formed, and then, perhaps, resembled such mud-islands as are to be frequently seen on low shores. By great storms these may have been covered with sand, and then formed into compact elevated spots, higher than the level of the surrounding country, but not so high as the top of the embankment, which was afterwards constructed, and which rescued the whole country from the sea. These elevations are locally called wharfs. On one of the largest of them, about two hundred and fifty acres in compass, the city of Embden is built, and the other towns and villages, with the very few lone houses, are all on similar, but more contracted spots. As the whole of the cattle, with the hay, straw and corn must be secured, as well from the floods, as from the frosts and snows, a farm is necessarily provided with very substantially built barns, stables, cow-houses and sheep-houses, besides granary and cart-lodges, sufficiently capacious to contain all the live and dead stock of the farm. The first expense of erecting these buildings is very great, from the scarcity of timber, and the want of stone. They are generally estimated to be

worth from one-third to one-fourth of the value of an estate; and the constant need of repair, added to the interest of the capital, amounts to a heavy charge on the land. On a farm of eighty or ninety acres, the buildings were estimated at 400*l.* sterling, whilst the land, without any building, would not be worth more than 1,000*l.*

Climate.

Another weight on the agriculture arises from the nature of the climate, from the severe and frequently long frosts, and from the floods, which cover the whole surface before the frosts commence, and for a long period after their solution. From the state of the weather, nearly one half of the year is necessarily passed in inactivity, both by the horses and the labourers on every farm.

Rate of Wages.

On the other hand, the wages of the labourers are very low; they commonly live with and like their employers, and, besides their board, are paid about 3*d.* per day in winter, and 6*d.* in summer. When men are hired by the day, in summer, the only season in which they can obtain employment, they are paid from 1*s.* to 1*s.* 3*d.* The daily food of a labourer, in the house of his employer, was stated by a practical man to cost between 7*d.* and 8*d.*

Taxation on Land.

The chief tax is the *grundsteur*; or land tax. On the whole province it amounts to about 27,000*l.* per year; but as the very worst lands, consisting, as has been stated, of two hundred and forty thousand acres, are not rated, that sum is extracted from about four hundred and fifty thousand acres, and from the houses in the cities. Commissioners distribute this levy according to the quality of the soil; and thus it is levied with most weight on the best lands. It was stated to me, that some of the best lands were charged as high as a thaler the grass, a local measure of ground, nearly equal to an English acre. This would amount to 3*s.* 3*d.* the acre. The recent ele-

vation of the embankments, with the repairs occasioned by the calamitous flood of 1825, had caused a demand on the same lands to be made, at the rate of 10*s*. the acre.

Value of Land.

The value of land, as may be supposed from the different qualities of the soil, already noticed, varies extensively. There is a considerable capital in the country ready to be invested in land, whenever sales are to be made. As the gentry are far from being rich, and the merchants are but inconsiderable, either in number or as capitalists, the accumulation of capital has chiefly been created among that, the larger portion of the yeomanry, who possess and occupy the good lands, in portions of from eighty to one hundred and fifty acres, who, by industry in their work, and parsimony in their mode of living, have been enabled to accumulate savings. This class of persons have no other view or knowledge of investing their reserve of money, but by purchasing more land. Owing also to this way in which the capital is distributed, there is no want of tenants ready to take farms, when any of the better descriptions are to be let, at what may be considered a high rent.

Some rich pasture land which I saw had been purchased at about 18*l*. the acre, and was let at 22*s*. the year, the proprietors paying all taxes, and the tenant keeping the buildings in repair. More rent would have been given, if permission could have been granted to break it up, and sow it with rape and corn. On lands adjoining, where the crop of oats was partly cut, and in part quite fit for cutting, which appeared to be very good, I learned that the average annual produce amounted to half an Embden-last the grass, or nearly forty bushels the acre. I should think it to be equal in quality to such lands as in Lincolnshire or Somersetshire would now let

at 45s. per acre; but somewhat of less relative value, on account of the later period at which the grain ripens, and the consequently greater risk of its being injured by the autumnal rains before it can be harvested. Value of Land.

As this is the kind of land on which the exportable part of the grain is produced, it has appeared not altogether useless to pay more attention to the circumstances that relate to it than to the other soils of the province. Those gradually descend in their productive power, and, consequently, in their value, till they may literally be pronounced of no value whatsoever. The nearest approach to this worthless land is, however, in some degree made of use by settling on them numbers of poor, who farm what is locally termed, a colony. They are established on the heath-lands belonging to the crown, generally by the side of a road, with a depth behind their cottage, extending over a space of from four to fifteen acres. The more industrious of these people, by their labour improve the soil, and some, by great parsimony and abstinence, are enabled to convert their wastes into decent means of subsistence, whilst others of them too often present to the traveller pictures of privation and distress. It would be long, however, before those divisions of a country could raise their cultivation to such a state as to produce more than sufficient for their own consumption.

An apprehension has been expressed, with regard to the possible quantity of oats that might be sent from East Friesland to Great Britain; it may be thought proper, therefore, to estimate what the actual cost is to the grower in that country. Cost of the Cultivation of Oats.

When pasture-land is first broken up, it is generally sowed with oats. As such land has, for a space of time previous to its being ploughed, been fed by cattle, and its powers of production nourished rather than exhausted, it

Cost of the Cultivation of Oats.

will, on the average, yield about five quarters of oats to the acre. Such is at least the estimate generally made, though, in some few cases, the produce is much greater, and, in a great many cases, somewhat less.

	£.	s.	d.
The rent of such land, including all taxes, is per acre	1	2	0
Annual proportions of the repairs of the buildings	0	2	0
A day's work in ploughing - - - -	0	4	0
Five bushels of Seed Oats, 1*s.* 6*d.* - -	0	7	6
Sowing and harrowing - - - - -	0	0	6
Cutting, binding, and placing in shocks - -	0	2	8
Thrashing forty bushels, at 1*d.* - - -	0	3	4
Drawing to the barn - - - - -	0	0	6
Carriage to the market, or to the nearest port -	0	2	6
Hire of sacks (as the farmers do not keep them)	0	0	10
	2	5	10
Being, on five quarters, at 9*s.* 2*d.* -	2	5	10

I have reason to think that this calculation is nearly accurate as to the cost of oats, it being the result of various inquiries among cultivators, and because each of the farmers with whom I conversed stated, that they should be satisfied if they could be assured of a fixed price at 12*s.* per quarter. Supposing a farm of seventy acres to yield a profit on each acre, of the difference betwixt 9*s.* 2*d.* and 12*s.*, or 2*s.* 10*d.* on each of the five quarters, it would leave for the subsistence of the farmer and his family, and for replacing his live stock and implements, 47*l.* 15*s.*, which, in the parsimonious manner in which they live, would be deemed an ample remuneration. As the average prices for the last fifty-six years, from 1771 to 1826, appear by the account, Appendix, No. I., taken from the Official Register, by which the rent of the royal domains is governed, to have been 12*s.* 3*d.* per quarter; it may serve to account for the capital before stated to have been, in the course of years, accumulated, in the hands of this class of yeomanry. It may also show, that

the heavy complaints of low prices are not without reason to remark, that during the last eight years, with the exception of 1826, when not sufficient for the farmers' consumption was grown, the average price has been only 7*s.* 1*d.* per quarter. Cost of the Cultivation of Oats.

Though the preceding estimate has been made of the price of oats grown on the best land, I am disposed to think it will be nearly applicable to lands of the different degrees of inferior fertility, even down to such as require six bushels of seed to yield a crop of twenty bushels.

On each step of decreasing fertility, the rent and taxes rapidly decline, till, at the last point, their amount is almost nominal. The cost then is wholly the labour, which is much lower, when compared with the rent and the fixed charges, than it is in England, France, or the Netherlands. Thus, on land occupied by the colonists before noticed, the labour of a family on land paying in rent and taxes less than sixpence an acre, will, in a very few years, by spade labour, after beginning with potatoes, procure at the rate of fifteen or sixteen bushels of oats per acre, from as much land as they can manure. The value of their labour is the only part of the cost worth considering, and, as far as such labour can be estimated in money, it would probably amount to nearly the same by the bushel, as is shown by the estimate to be the cost, when that cost consists of the rent and taxes and the labour of cattle and men.

On land, between the two extremes of the highest and lowest degree of fertility, producing an annual average crop of twenty-seven or twenty-eight bushels of oats to the acre, the rent and taxes would amount to less than in the estimate; as the soil is lighter than in that estimate, and had been previously broken up, it would be less expensive to plough it, and the produce being less, the cost

of cutting, thrashing, and carrying to market, would be less per acre; so that probably at 12*s*. per quarter, as much profit would be left for the grower as on the other suppositions.

No notice has been taken of the exhaustion of fertility consequent on the production of a heavy crop of oats. It would lead too far to compute the value of such exhaustion, though it should be considered as a part of the cost of that crop. The crop of oats is succeeded by a clean fallow, which causes an outlay of 1*l*. 2*s*. 6*d*. per acre, and the loss of a year's rent and taxes, 1*l*. 2*s*., which two sums, with the interest upon them, if divided between the seven crops that succeed the fallow year, will make them appear to cost more than they really do, and the crop of oats to cost less; for if the crop of oats had not intervened, the nutritive matter extracted by them, would have been left in the soil, to favour the products of the succeeding crops of the rotation.

See Appendix II. and III.

Losses on Oats of late years.

Whatever may be the cost, it seems clear, that in former years, during a long series, the growth of oats has been beneficial to the cultivators, and that, during a late course of years, it has been rather a losing operation. It does not appear, however, that the profitable periods very much stimulated to increase the quantity grown, or the losing periods to check their growth. In fact, when land is peculiarly, not to say exclusively, adapted to the production of any particular crop, the farmer will grow it, however uncertain may be the price at which it can be afterwards disposed of.

Scarcity of Oats.

In East Friesland, as elsewhere, there was no stock of old corn. The warehouses at Leer and Embden were empty. All the oats in the country had been shipped for England, and the first new oats of the then gathering harvest, which had been thrashed, had been purchased

with great eagerness, at the price of 20*s*. per quarter, with the hope of their being in time to be admitted here, before our ports were closed. Bread corn had, in the preceding year, been somewhat deficient, and as in the medium years very little more than sufficient for home consumption is raised, rye, the chief bread corn, had advanced in price, and was quite as high as wheat, although of the latter there was no store in reserve.

See Appendix I.

Effects of repressing the export of oats, and suddenly opening markets for them.

From the circumstances of the yeomanry, many of them can keep their corn in years of low price, and most feel a pride in doing so; and though in small portions, in the hands of individuals, yet when it has been pent up by our restrictive laws for several years, they can pour in such a quantity as is large for so small a country, though but a mere trifle in comparison with our regular consumption.

See Appendix IV and V.

It appears, that in the ten years from 1817 to 1826, there was sent here two hundred and six thousand two hundred and fifty-seven quarters, or, on the average, twenty thousand six hundred and twenty-five quarters, annually; but during the first seven years of that series, the annual average was only seven thousand four hundred and nine quarters, whilst in the three last, the average annual quantity amounted to fifty thousand one hundred and thirty-one quarters.

As so many cows are kept in this province, the sale of butter, though estimated at only 100*l*. from each cow, is more relied upon for the benefit of the farmer, than the cultivation of oats.

A large quantity of rape seed also is raised, for which the demand is tolerably regular in Holland, and it is usually sent there to a moderately profitable market, whilst feathers and quills from their numerous geese, form a small subsidiary benefit.

Duchy of Oldenburg.

That part of the dominions of the Duke of OLDENBURG, which is situated in Westphalia, for he is sovereign of two other small territories, one near the Baltic, and the other near the Rhine, are much more extensive than East Friesland, but much less productive. The soil is mostly sandy, and covered with a black heath, but on some few and contracted spots, there are found either clay or loam, and these have been brought into cultivation, but scarcely produce sufficient food for its scanty population, and their small stock of cattle.

Face of the country.

Best soil.

In the northern portion of this principality, on the seashore, and on the banks of the rivers Jahde and Weser, there is a narrow strip of rich marsh land, protected from ordinary inundations by either sand hills or lofty and strong embankments. It extends from the shore, in breadth varying from three to six miles, and enjoys the same fertile qualities as are noticed in the observations on East Friesland. It is on this tract that the corn is produced which forms the chief of the exportable commodities from the ports of Varel, Bracke, Elsfleth, and Kniphausen. Though this dukedom is nearly double the extent of East Friesland, the quantity of good land is much less. The live stock consists more of sheep, some flocks yielding fine wool, and of horses, about four thousand or five thousand of which, chiefly when foals, are sold to the neighbouring countries. The number of cows is inferior. The population is also less dense, the inhabitants, on one million four hundred thousand acres, not being more than two hundred and ten thousand, though they have considerably increased in numbers since the census of 1817, when they were found to be one hundred and eighty-five thousand five hundred and eighty-nine.

In passing through this duchy, I remarked a great number of new colonial establishments, especially within a few miles of the city of Oldenburg. These resemble what have been noticed in East Friesland, and exhibit the various shades between the result of activity and skill in cultivation on the one hand, and that of indolence and awkwardness on the other. This mode of disposing of that portion of the population which, when capital is scanty, can obtain no employment, seems both humane and beneficial, and appears to be extensively spreading over those countries, in every part of the continent where necessity has first caused its adoption. Whatever condition the poor lands on which they are established may, at some future period, attain, it must be a long time before they can produce much corn beyond what the subsistence of the labourers requires; and, at present, though it may not be improper to be noticed, has no bearing on the subject of the prohibitory or protecting corn laws of other countries. Colonies of Mendicity.

When I was at Oldenburg, I was informed that the granaries in the city, as well as those of Elsfleth and Bracke, were quite exhausted of oats, though in the year 1823 they had contained together upwards of thirteen thousand quarters. No wheat, except a small parcel imported from the Baltic, was to be found, nor either rye or barley in them. The harvest was in forward progress, and a few new oats had been already brought to market, which, from the absolute want, had been sold as high as 20*s*. per quarter. The prices have been nearly the same as those of Embden and Leer, during a long series of years. The cost of production and of conveyance to the places of shipment, are also too nearly resembling what has been stated respecting East Friesland, to make any further calculation on these subjects necessary. No stocks of Corn on hand.

The districts of Jever and Kniphausen, which comprehend, for their extent, the greatest proportion of the best marsh land, afford more exportable produce than any portion of equal extent in East Friesland; but those districts, added to that on the banks of the Weser, form so small a portion of the whole duchy, that Oldenburg has far less means of supplying other countries with corn than East Friesland.

Exports to Great Britain.

The whole exports to Great Britain, in ten years, from 1817 to 1826, according to Appendix, No. IV., have been as follow :—

Wheat	-	10,890,	or, on the average, 1,089 yearly.
Rye -	-	403,	all in the year 1826.
Barley	-	7,917	
Oats	-	44,800,	on the average yearly 4,480.

The same remark may be made here as elsewhere, that it is only when the export of corn has been repressed by restrictions, that any quantity has been ever furnished deserving of notice.

In the ten years from 1817 to 1826, the whole quantity of wheat exported from the duchy of Oldenburg was only ten thousand eight hundred and ninety quarters, or, on the average, one thousand and eighty nine quarters annually. On oats, eight years of the period gave an average of only six hundred and seven quarters, whilst the two openings for that grain in 1824 and 1826, show an average of those years, amounting to eighteen thousand nine hundred and eighty-three quarters.

See Appendix VI.

I am led to believe, by communications from our Vice Consul, received through Mr. Consul General Canning, that the merchants of Bremen have, at times, kept stores of corn at the port of Bracke, within this duchy, for the sake of more expeditious shipment. According to the same communication, it appears, that in 1823, at that

place, at Elsfleth, and in their vicinity, there was in store, in the hands of speculators, about one thousand five hundred quarters of wheat, one thousand seven hundred of rye, and thirteen thousand six hundred and forty of oats. At present there is none, except that in the hands of the farmers, which, after the large comparative export of the two or three late years, must be very inconsiderable. See Appendix VI.

The other exports of Oldenburg, as of East Friesland, consist of rape seed, buck wheat, butter, cheese, bacon, hams, tallow, hides, wool, feathers, and quills, but all in small quantities.

The corn, including rape seed and buck wheat, forms about half the amount of the whole exported produce. I believe much of the foreign trade is carried on for account, or by means of the capital, of the merchants of Bremen.

Bremen.

The city of BREMEN, though, from the freedom it enjoys, both commercial and political, from the justice of its government, and from the unaffected hospitality of its citizens, an interesting spot, is, as far as regards the particular trade in corn, but of little consideration.

Though the river Werra, which comes out of the Saxon duchies; the Fulda, which comes through Hesse Casel; and the Line, which passes through Hanover, all unite their streams in the Weser, before that river reaches Bremen; the corn, which in common seasons is brought by them, scarcely more than suffices for the consumption of that city. Thus in three years, 1824, 1825 and 1826, the whole quantity of wheat imported from the Upper Weser, was thirty-eight thousand six hundred and seventy quarters, of which the consumption See Appendix VIII.

amounted to thirty-three thousand two hundred and seventy quarters, leaving for the ports on the Lower Weser, and for exportation to foreign countries, only five thousand four hundred quarters, or one thousand eight hundred quarters yearly, on the average.

The rye which descends the Weser does not suffice for the consumption of the city and its territory. In the three years before noticed, the whole quantity brought from the Upper Weser was only thirty-four thousand quarters, and the consumption sixty-one thousand five hundred and seventeen quarters; thus leaving a demand of twenty-six thousand five hundred and seventeen, to be supplied from the sea and the Lower Weser. The barley from the Upper Weser, in the same years, was sixty-six thousand one hundred and eighty quarters, and the consumption thirty-nine thousand two hundred and seventy-two; thus leaving for foreign trade, and for the inhabitants on the Lower Weser, twenty-six thousand, nine hundred and eight quarters, or at the rate of eight thousand nine hundred and sixty-nine annually.

The foreign corn trade of Bremen, as far as it extends, is one of speculation, carried on by imports from the Baltic, and when such an opening occurs in England, France, Spain, Portugal, or Madeira, as will admit of a profit by shipping to those markets.

See Appendix VIII.

The imports from foreign countries for three years, including what comes from the Lower Weser, where very little wheat is grown, appears to have been—

45,630	quarters of	Wheat,
45,980	do.	Rye,
24,250	do.	Barley,
3,470	do.	Malt;

thus, the barley and malt together, about serve for the consumption.

The growth of oats and beans is more extensive, from the nature of the rich marsh land, both above and below the city, but chiefly from that part below it, including also what is brought by sea. It appears, that about ninety-five thousand quarters of oats must have been consumed in the city, in its territory, and in the neighbouring towns and villages in the kingdom of Hanover, within the three years in question, or thirty-one thousand four hundred and seventy-three quarters annually. The whole exports in the same period, were sixty-four thousand one hundred and eighty, or twenty-one thousand three hundred and ninety-three annually. The export of 1826, the crop of which year was deficient, reduced the stock in granary from thirty-three thousand eight hundred and forty quarters, which were there deposited 1st January 1824, to six thousand four hundred and ten quarters, which was all remaining on the 1st January 1827.

The districts that come in contact with Bremen, or have access to it by water, are well adapted for the cultivation of beans, and, in the three years here noticed, there have been exported thirty thousand nine hundred and eighty quarters. Some of these must have been old stock from the granaries, as the importation was only seventeen thousand, five hundred and twenty, whilst the exportation was twenty-nine thousand eight hundred and sixty. It appears, that on the 1st January 1824, there were pent up in the granaries, twenty-one thousand six hundred and ten quarters, but when they were released, by the opening of foreign markets, that stock was reduced, on the 1st January 1827, to one thousand one hundred and twenty quarters. See Appendix VIII.

The navigation of the Weser, above Bremen, like that of all rivers of long course, is very unfavourable, especially during the months of summer. When I was at that city,

a vast number of loaded craft had been detained a long time, for want of sufficient depth of water to ascend the stream; and near two months later, when I was at Münden, in Hanover, where the junction of the Fulda and the Werra form the Weser, many barges were waiting for sufficient water to descend to Bremen. The lower navigation, and the trade generally, it is hoped, will improve, by a change of territory lately effected between the King of Hanover and the Republic of Bremen; by which the latter will be enabled to construct a good harbour, at the town of Elsfleth, on the bank of the river below the city.

An improvement in the internal navigation might increase the facility of bringing from the extensive countries on the banks of the tributary streams of the Weser, a greater quantity of grain. But the population in those countries is increasing with a degree of rapidity, so much greater than the pace of improvement in cultivation, that there is no probability of the latter overtaking, and far less of its preceding the former.

The stock of wheat had been reduced, and, according to the statement furnished to me, consisted of about twenty thousand quarters, mostly brought from the Baltic, some of which was understood to be under orders for the South of Europe, and all of an indifferent quality.

Mecklenburg.

The Duchies of MECKLENBURG-SCHWERIN and MECKLENBURG-STRELITZ, though under different sovereigns, are politically connected by an assembly of the states of the two dominions being formed into one legislative body, and by one supreme court of judicature exercising legal power, in cases of appeal to it, over the inferior tribunals

of both duchies. They may, however, with greater propriety, be viewed together in an agricultural light than a political one. The soil and climate are nearly similar; the land is divided in a similar way, the laws are the same, and they have the same common outlets for whatever surplus produce they may have to send to distant markets.

Face of the Country and Soil.

The district is in general a level plain, with undulations of no great inequality. In the centre, from east to west, is a ridge, nowhere elevated more than two or three hundred feet above the level of the sea, which divides the course of the several streams of water that rise in the country. All the rivers on the north side of the ridge run to the Baltic, and all to the south of it empty themselves into the river Elbe, which touches the southern boundary. On both borders of this ridge, the soil is a poor sand, covered with heath. Few tracts, in any part of Europe, are more miserable in cultivation, or more thinly inhabited, than that between the two cities of Schwerin and Gustrow, a distance of nearly forty English miles. To the south of this district, the soil is somewhat better; and beyond Gustrow, towards what was formerly Swedish Pomerania, the sand gradually changes into a good loam, which, when well cultivated, is very appropriate for the growth of rye and wheat. Near the shores of the Baltic, the soil is, for the most part, a meagre sand, but intermixed with stripes of loamy land, capable of bearing rye and some little wheat. With the exception of the sandy heaths, the face of the country may be described as cheerful and pleasing; the land is mostly inclosed, in rather too large divisions, indeed; the woods, which are extensive, are scattered over the district, and there are abundance of fresh-water lakes, on whose borders good meadow lands occasionally present themselves.

Inclosures.

The climate was represented to me to be very severe, and very changeable in the winter months, which, as the spring fills but a short interval, may be said to occupy the greater part of the year. This condition of the weather has an influence on the appearance of the country. From its severity, it is necessary to be provided with buildings sufficiently extensive to contain all the live-stock, and all the hay, corn, and straw. Hence a gentleman's house, commonly very large, displays around it, besides labourers' cottages, ranges of barns, stables, cow-houses, sheep-houses, granaries, cart-lodges, and harness-rooms, more than five times as great as would be required in England for the same extent of land; and the country, at a passing view, seems to be much more advanced towards prosperity than it is found to be on a closer examination. On a nearer approach, it is scarcely possible to avoid feeling disgust at the miserable filthiness and apparent poverty of the peasants' dwellings, and of their clothing, though a difference may be discerned on the several properties, according to the greater or less degrees of prudence and kindness of the various proprietors.

System of Husbandry.

The system of cultivation prosecuted in Mecklenburg differs from that which prevails in almost every other part of Germany, and indeed of continental Europe, except Holstein and Sleswick. Instead of the *(dreifeldwirthschaft)* three-course rotation of a year's fallow, succeeded by winter-sown corn, and that by spring corn, there is, almost universally, the *(koppelwirthschaft)* inclosure husbandry introduced. After a whole year of fallow, three corn crops are sown in succession; in the third, grass seeds are sown, which make hay in the next year; and the sixth and seventh years the fields are used for pasture. This, though an improvement on the rotation of their neighbours, seems to us to be an injudicious

course; but, perhaps, more attention to the soil, the climate, and many local circumstances, than a casual observer can duly exercise, might afford reasons to justify the practice.

Division of Landed Property.

The division of property is considerable; much of it is in large parcels, either parts of the domains of the sovereign, or of knightly, monastic, or other feudal tenure; whilst some few freeholds are in smaller divisions, and most of the bauerhoffs, or peasants' holdings, under the large estates, are small.

Peasantry.

The ancient feudal system, which formerly prevailed over all Germany, as well as in the rest of Europe, has been gradually changed. The peasants were in a state of slavery of a mitigated kind. They could acquire, enjoy, and transmit property, but they were *adscripti glebæ*, and bound to the soil, so as to be sold or let to farm with it. The government took measures, on the restoration of peace in 1815, to abolish this relic of the barbarous age, in a gradual manner; and, about five years ago, all the peasants, who still remained in the condition of serfs, for many of the proprietors had previously emancipated those on their own estates, were declared free, though the actual completion only finally took effect two years ago. They can now repair to any other place to labour, and are no longer under any kind of personal controul. Very few changes, however, have taken place, either in their residences, their time of labour, the payments for their labour, or in their habits or appearance. All seemed to agree in the opinion, that no visible alteration was made in them yet, but great differences of opinion existed, as to whether the change would, upon longer trial, be found beneficial or injurious to them. All, however, lamented the low price of ardent corn spirits (every one being allowed to

distil without tax or restriction), and the prevalent tendency to the excessive use of them.

Proprietors and Cultivators.

Though some of the largest estates in Mecklenburg are cultivated for the account of the proprietors, through the instrumentality of stewards or bailiffs, yet many of what may be denominated secondary sized estates, are in the hands of the proprietors, who reside upon them, and attend carefully to all the operations of husbandry. It was my good fortune to form acquaintance with several noblemen and gentlemen of this description, as well as with some renters of large estates; than whom I have never met with more intelligent, enlightened, and accurate men in any country. I found them all ready to communicate information, and disposed to do it in that way that could make it most easily comprehended. One among the number, acknowledged by each to be superior to all, I must, however, notice by name, Mr. Von Thünen, of Tellow. This gentleman, to very great natural powers, has added scientific attainments of the highest kind, and applied them to the practical purposes of agriculture with the greatest success.

Mr. Von Thünen.

Whilst on a visit at his house, after much interesting conversation, I requested him to allow me to propose to him a series of questions, to which I expressed my wishes for deliberate answers, as fully as his time would admit.

These answers followed me in succession, and they form the valuable facts detailed in the Appendix, No. X., Parts 1, 2 and 3. I have the fullest reliance on the correctness of the statements and calculations, and think it not possible that any person who shall examine them, if he has paid much attention to agricultural details, can have a doubt of their fidelity, and even their minute ac-

curacy. No accounts, either of official men or of merchants, can be kept with more correctness than his; and every fact, during the course of many years, is carefully registered, and easily referred to.

His estate at Tellow, of about one thousand one hundred and fifty acres, is naturally some of the best land in the province, a loamy soil, light to till, not peculiarly liable to twitch or couch grass, and easily kept dry. The produce from it is not, therefore, to be taken as the average of the country, even when the land is equally well managed, much less can it be so taken, because, perhaps few, if any other, portions of the land, have so much attention, labour and manure applied to them. Estate of Tellow.

Although I obtained from various individuals a great many portions of useful information, as far as it went, it only corroborated that which I have received from Mr. Von Thünen, and could not be reduced into so statistical a shape as his answers present. I am, therefore, induced to adopt his representations, with the fullest confidence, in this part of my Report.

In considering the value of land, it must be remembered that the extensive buildings for agricultural purposes, and for habitations, are nearly one-third the value of a whole estate. Price of Land.

An estate of the best quality of soil, containing one thousand eight hundred and thirty-four acres, was sold, including the buildings, for 13,960*l.* sterling. If the buildings be valued at a third, and they probably cost much more, the value of the land alone would be 5*l.* 4*s.* 2*d.* per acre; but with the buildings included, 7*l.* 12*s.* 8*d.* Another estate, for which the owner had paid 10,550*l.* about twelve years before, consisting of five thousand six hundred and forty-two acres, whose soil is of the poorest quality, had been recently sold for 6,468*l.*,

Price of Land.

or, omitting all value of the buildings, at 1*l.* 2*s.* 11*d.* per acre. These are two extremes; whilst the average value is calculated to be, at the present time, for all the estates in the duchy of Mecklenburg Schwerin, from 3*l.* 7*s.* to 3*l.* 14*s.* per acre, allowing nothing for buildings.

According to the best opinions I could collect, and corroborated by the gentleman I have named, the decline in the value of estates within the last ten or twelve years has been at the rate of 15 to 20 per cent. on those of the best soils, and from 30 to 40 per cent. on those of the inferior soils.

Taxes on the Land.

The taxes in Mecklenburg are lower than in most parts of the continent. The amount paid to the state by the land is, on the average of the whole, 1*s.* 10*d.* per acre. The local taxes vary in each district, and almost in each parish, and no average approaching to accuracy could be formed by one who merely paid short visits to a number of individuals. Mr. Von Thünen states his own local taxes on an average of the period from 1810 to 1815, to have amounted annually to 45*l.* 15*s.* sterling, or 9½*d.* per acre.

Rent.

Farms of a medium extent, viz. from three hundred and twenty, to one thousand six hundred acres, yield the greatest proportionate rent; those larger yield somewhat less, and those smaller than three hundred, and let to common peasants, yield the least of all. The leases are usually from twelve to twenty-one years; but some are only for six years, whilst some few others are extended to twenty-eight years.

The rent varies excessively, as may be supposed from the various qualities of the soil. The best farms are rented as high as 12*s.* per acre. The medium soils range from 6*s.* 4*d.* up to 8*s.* 4*d.*, and some few as high as 10*s.* 6*d.* per acre. The sandy districts in the southern

part of the duchy are let from 2*s*. to 3*s*. 2*d*. per acre. Rent. The various taxes and other outgoings, borne by the proprietor, as enumerated in the Appendix, amount to about 1*s*. per acre.

I am disposed to think, from other sources of information, that the larger portion of the land would not produce a rent of 5*s*. per acre, if let, especially if that is included, as it ought to be, which is occupied by mere peasants, who pay commonly but half the rent which the farmers of large estate, from their superior manner of cultivation, can afford to do. The average value of the land is not estimated to be more than from 3*l*. 7*s*. to 3*l*. 14*s*.; and as land scarcely pays 5 per cent. on the capital, even in prosperous times, it can rarely be let for more than 5*s*. when the landlord's portion of the burdens amounts to 1*s*.

The rate of labour in this country varies much, as well as the mode of payment. Labour. In general it consists partly in money, partly in produce at a fixed price, below that of the market, and partly in various accommodations, such as the keep of a cow, a house, flax-ground, potato-patch, and turf or wood for fuel. This mode of remunerating labour, makes it difficult to generalise its rate. Mr. Von Thünen has taken the pains to detail, and to analyse all those several minute portions, as far as relates to his own estate. He is a liberal master, and probably his rate of payment may be taken as the maximum of the country; whereas those who are more needy, or more griping, may, perhaps, get their poor labourers to work for less reward.

Though the observations on labour, in the Appendix, are highly worthy of consideration, the following extract will show what, according to Mr. Von Thünen's estimate, is the cost of a day's labour, reckoning three days' work of a female to be equal to two days' work of a man:—

Labour.

	Days' Work.
(A.) During harvest - - - - -	1s. 4d.
(B.) During haymaking - - - -	1 1½
(C.) In all kinds of husbandry:	
1st, if done by the piece, or under inspection,	
In Summer - - - - -	1 0
Autumn - - - - -	0 9
Winter - - - - -	0 8
2d, in the ordinary way, without any inspection,	
In Summer - - - - -	0 9
Autumn - - - - -	0 6½
Winter - - - - -	0 6

It is within so recent a period, that the feudal system of personal service has been abolished in Mecklenburg, as to leave room to believe, that the feelings and habits produced by it, must still, in some degree, influence the rate of the wages of labour. The proprietor of an estate can scarcely yet look upon those born on it, who, with their progenitors, have been the attached dependents on him and his ancestors for generations, with the same indifference as the hirer views the mere hireling, between whom there is no other bond of union than the bargaining on the one side for as much work and as little payment as possible, and on the other, for as much payment and as little work as he can obtain. The relation between the lord and the serf may at present continue to exercise its influence, though the law which created it be changed. It is to this may be attributed the number of persons maintained on the estates in Mecklenburg. Thus, on the estate of Mr. Von Thünen, where there are only eight hundred and four acres of tillage land, one quarter of which are constantly in pasture, there are maintained, by the labour performed on it, no less than one hundred and twenty-eight human beings, of whom eighty-five are of mature age. I found the ratio of population to be much higher on some other estates. The proportion of

children, under fourteen years of age, to the whole number of people, indicates a rapidly increasing population, which is confirmed by the accounts regularly kept of births and deaths; and causes some anxiety for the future condition of the labouring classes, amongst those who think their change of condition has been too rapidly hastened forward. Labour.

It is difficult to make an accurate scale of effective labour in any country. In England, the skill and exertion applied to agricultural labour, differ very materially in one county, or even one division of a county, from those exercised in another. I have attempted in various countries, to estimate the portion of labour performed in them, both by men and by working-cattle, in order to make a comparison between them and this kingdom; but to make such a comparison complete would require much more time, and a greater collection of data, than could be easily gained. In the Appendix to this Report will be found many statements of the quantity of work executed in the several stages of agriculture, both by men and horses; but I must leave the task of generalising and comparing them with our own labourers' performances, to those who have leisure to collect the British data on the subject.

As far as my individual observation goes, I am disposed to think, certainly not with much confidence, that our labourers perform nearly one-third more work, and perform it better, than is done in any of the several continental countries I have visited, excepting, however, the Netherlands, where the work is admirably performed, and whence our best practical farmers have much to learn.

The cost price of wheat, as of other corn, must vary according to the quantity produced in each year, according to the rate of wages in such year, and, in some mea- Cost of raising wheat.

Cost of raising wheat.

sure, according to the prices which are obtained for the parts of the cows and sheep that are disposed of, and of the butter, cheese, and wool, which they annually afford. It becomes hence almost impossible to ascertain what is the cost of any particular description of corn, in any one year; and very difficult to approximate to it in a series of years. Mr. Von Thünen has been so good as to furnish me with a calculation founded on facts within his own experience, and recorded by himself at the time, of the expenses of cultivating 536 acres of arable land, during a course of seven years, in the following rotation, viz.—

1st, Fallow
2d, Rye
3d, Barley
4th, Oats
5th, Pasture or hay
6th and 7th, Pasture.

The annual expense, most satisfactorily pointed out, appears to be 561*l.* 14*s.* 5*d.* or 23*s.* 11*d.* per acre. This makes the cost of rye on the farm to be 2*s.* and 6-10ths, or 2*s.* 7*d.* the bushel, or 20*s.* 8*d.* the quarter. The cost of wheat to that of rye, is estimated to be as five to four, arising from the greater cost of the seed; the greater exhausting power of the crop; the greater expense of harvesting; the additional labour of harrowing and rolling; and the greater cost of carrying twenty-four miles to market. In this way of calculating, the actual cost of wheat, on an average of a course of six years, would be 25*s.* 10*d.* per quarter.

See Appendix, No. X. Part 1.

The charges on this quantity, for carrying to the English market, including shipping expenses at Rostock, freight, insurance, landing-charges, port-dues, measuring, factors' and merchants' commission, and other expenses, amount to about 14*s.* per quarter, making the actual cost

in London to be 40*s**. This is the cost, even if it be sold before it is landed; but if not, other expenses must be incurred for warehousing, rent, and ultimately delivering; besides some loss in measure. The best wheat shipped from Rostock and Wismar is of a quality inferior to the average of English wheat, both in weight and colour; so that if English wheat be at the average of 60*s*., this kind would not yield in our market more than 55*s*., from which must be deducted whatever amount of duty the Legislature in their wisdom may see right to impose on foreign wheat. This calculation is made without any allowance of a profit to the farmer, beyond the interest on the live stock and implements, or any income to the proprietor, beyond interest on the value of the buildings. It is to be observed also, that the estate of Tellow, from whence the facts are drawn which form the basis of this calculation, being cultivated in the best manner, produces more corn per acre, and consequently produces it cheaper, than the average of the same province.

I met with no proprietor or farmer whose average crop came within a seventh of that of Tellow. When wheat is badly cultivated it grows, too, of an inferior quality. I am therefore disposed to think, that the actual cost of the average wheat grown in Mecklenburg is full 5*s*. higher than this calculation; and, on account of its inferior quality, would not yield in our markets the same price within 3*s*. per quarter. I am induced to judge the value of the average wheat of Mecklenburg, being taken at 8*s*. below that of English wheat, cannot be far from the truth.

It appeared in the evidence of Sir Claude Scott, before the Committee of the House of Lords, last year, that wheat of tolerable quality had been sold at Rostock at 18*s*. per quarter, at the time when, by other parliamentary

* See Note A, at the end.

papers, it appears that wheat was selling at Dantzic at from 27*s*. to 29*s*. per quarter. The expense of shipping and conveying from Dantzic to London is little, if at all, higher, including the town dues, than from Rostock to London, or the freight from Rostock to Dantzic would be scarcely more than 2*s*. The difference in price must arise from the inferiority of the quality of the wheat of Mecklenburg to that of Dantzic; and the average of Dantzic wheat is not higher than that of England, except at particular seasons, as after a wet harvest, when some of the dry wheat of Dantzic is in great demand, to enable the mealmen to convert our damp wheat into good flour.

It deserves to be also remarked, that no allowance is made in the preceding calculation for the profit of the merchant of Rostock, who buys of the farmer and sells to the Englishman. If credit may be given to the reports of capital created in that city by the trade in corn, there must have been an addition to the expense of conveying it from one hand to the other, which would advance the cost of it, before it could reach the English consumer, very considerably.

After visiting the cultivators of wheat in Mecklenburg, I had opportunities of conversing with the merchants of Rostock and Wismar, who have been chiefly engaged in the trade of that article. I was informed by them, that the greater part of the wheat came from the farms in such a state as to make it necessary to skreen it over again before it was fit for the English market, in which operation a portion, varying from eight to sixteen per cent. of the quantity, was separated from it, and sold as inferior, or, technically, tail wheat, being scarcely fit for any purpose but feeding poultry or pigs.

If the average of the wheat of Mecklenburg would cost, by the time it was landed and sold in this market, 45*s*.

per quarter, without leaving any profit to the farmer or merchant, or any rent to the proprietor of the soil; if, when English wheat was selling at 60*s*., it would not produce more than 52*s*., there can be no reason to apprehend that any increase of cultivation of that species of corn will take place.

As it appears by the consular returns of prices of corn in the two ports of Mecklenburg, as laid before Parliament, that wheat has been, for several years, sold at much lower prices than the calculation here framed represents as the cost price of growing it, it may excite surprise that any quantity should be raised. It should, however, be recollected, that some few of the soils will produce rather more wheat than rye, at a cost of one-fourth more in cultivation; that the whole quantity of wheat produced is not more than one-seventh that of rye; and that wheat, when a scarcity opens markets in foreign countries, advances far higher in proportion to its value on the farm, than rye ever does. It thus happens, that those who can afford to keep corn by them, from an expectation of a rise, will prefer wheat to rye, as offering the greatest profit ultimately.

Surplus produce of wheat.

The whole surplus quantity of wheat that Mecklenburg has, or probably ever can furnish, even if all were sent here, is so small, when compared with our regular consumption, that if the whole were sent, even without any duty, it would raise the price in that country, but would scarcely affect our markets. If it came here annually, as it was fit for sale, and was not pent up for a number of years, and then suffered to burst upon us in quantity so much beyond the average surplus of the growth, as to produce that kind of panic which, of all things, is found to be most injurious to regular and fair commerce, the

Surplus produce of wheat.

effect would be scarcely felt. It has been deemed proper to enter more fully into the particulars of its cost, partly from having obtained more accurate and minute details than were to be commonly met with, but chiefly from the persuasion that in no part of the world can wheat be grown and brought to England at so cheap a rate as in Mecklenburg.

I was assured by all who were likely to be well informed, by proprietors, farmers, merchants and official men, that the surplus produce of wheat never could, in a series of years, amount to 80,000 quarters; that if more than at present were grown, it would lessen the crop of rye, which already afforded scarce sufficient for the rapidly increasing population*.

See Appendix, XI. and XII.

This representation is confirmed by the official documents in the Appendix to this Report. It appears by them, that the whole exports from Rostock, for the twelve years from the first of January 1816, to December 1827, amounted to 447,062 imperial quarters; that from Wismar, in the same period, amounted to 248,421 quarters. Besides this, some is shipped at Baitzenburg, on the river Elbe, for Hamburg; but I could not ascertain the exact quantity, because, in the accounts of that city, all that descends the river, whether from Mecklenburg, Hanover, Prussia, Anhalt, Saxony, and even from Bohemia, is blended together. I had reason to conclude, from several reports, that it could not exceed five thousand quarters annually, if it amounted to so much; for the land in the southern part of the duchy, which touches the Elbe, is generally a poor sandy soil.

The exports will thus appear during twelve years, including the years of enormous export, 1817 and 1818, to have been—

* See Note B, at the end.

	Quarters.	
Rostock - -	447,062	Wheat.
Wismar - -	248,421	—
	12)695,483	
	57,950	annually.
Boitzenburg - -	5,000	
	62,950	

See Appendix XI. and XII.

Our own Custom House accounts, in some degree, confirm this view of the limited quantity of wheat which Mecklenburg can furnish. This country is certainly the best market for good wheat when the ports are open; and when they are closed, and the corn must be landed under bond, our merchants are more liberal in their advances on consignments, than those of the continental commercial cities. It must, therefore, under any circumstances, be most beneficial to send the most, of what is of a superior quality, to this kingdom.

It appears by the returns from our Customs, that the whole imports of the Duchy of Mecklenburg, in the ten years, from 1817 to 1826, both inclusive, amounted to three hundred and forty-nine thousand two hundred and sixty-two Winchester, or three hundred and thirty-eight thousand nine hundred and ninety-six imperial quarters, being annually thirty-three thousand nine hundred imperial quarters. On this comparison it will be seen, that about one half of the produce finds its way, at one time or another, to this country. See Appendix V.

It deserves to be noticed, that when the corn was pent up, during the four years from 1821 to 1824, the whole quantity of wheat imported was only at the rate of four thousand one hundred and forty-four quarters; but when the prospect of an opening arose, a rush brought, in the years 1825 and 1826, no less than one hundred and sixty

See Appendix V. thousand five hundred and sixty-five quarters; and when the torrent thus pent up had passed, the imports of the year 1827, up to the 5th of October, were no more than sixteen thousand seven hundred and nine quarters, which have left the country quite bare of wheat.

The same observation may be applied to the other kinds of corn when pent up by restrictive laws; thus, from 1817 to 1823, the whole annual importation of oats into Great Britain, from Mecklenburg, was only seven thousand eight hundred and forty-three quarters; but in the years 1825, 1826, and 1827, was one hundred and eighty-one thousand and forty-eight quarters, or at the rate of sixty thousand three hundred and thirty-nine for the three years. In barley also, in the five years from 1820 to 1824, the annual importation was only at the rate of four thousand three hundred and eighty-four quarters; and in the two following years, when a prospect of an opening arose, it amounted annually to fifty thousand two hundred and forty-five quarters.

See Appendix XIII. Another account of the expenses of cultivation, which was procured through the kindness of Mr. Canning, is rather an estimate than a statistical representation. It represents the produce to be much below that of the estate of Tellow, and though higher, I believe much nearer to the general average of the country. According to this statement, it is necessary, in order to pay a profit of five per cent. on the capital invested in the land, to be divided between the proprietor and the farmer, that corn should be sold at the following prices; viz.—

Wheat, at	- -	40*s.* per quarter.
Barley, at	- -	22*s.* —
Oats, at	- - -	13*s.* 4*d.* —

By this estimate, for the minute accuracy of which neither Mr. Canning nor myself can be vouchers, though

I deem it an approximation to the truth, it however appears, that the prices of Corn requisite to remunerate the cultivators, must be governed by the higher or lower prices at which they dispose of the produce of their flocks and their dairies. See Appendix XIII.

In every part of my progress, I ascertained that no stock of corn remained on hand of the harvest previous to that which had been just gathered in. I was assured by several persons, that if their harvest had been delayed a week or two, they must have purchased rye to have furnished bread for their families. I saw, in some cases, the horses fed with inferior wheat, the precaution of steeping it being first taken, because the owners had no oats, and the price was higher than that of the tail wheat.

Stock of Wheat on hand.

At Rostock, I was informed there were about twenty-two thousand quarters of wheat in the stores, of which eleven or twelve thousand was fit for the English market, some of it very dry brown wheat, of the harvest of the year 1819. That part not fit for England was destined to be sent to Holland, Portugal, and Madeira, before the winter should commence.

A letter from the vice-consul at Rostock to Mr. Canning, written after I had been there, contains the following reply to Mr. Canning's inquiries:—

"I estimate the quantities of grain stored at Rostock to be, of wheat, about twenty to twenty-five thousand quarters; rye, about seven thousand quarters.

"Of oats and barley no old stocks are remaining, as they have been shipped in the course of this year. No estimate, on which reliance can be placed, can be made of the stocks of grain of the preceding harvest, which are still in the hands of the farmers; but it is generally believed, that, with the exception of wheat, there is no old grain stored in this country."

Stock of Wheat on hand.

At Wismar, I was informed that the stores contained from three to four thousand quarters of wheat. The vice-consul was too ill to be seen, and my informant was a merchant to whom I was introduced.

The vice-consul has since written to Mr. Canning a letter, of which the following is an extract:—

"According to my calculation, there are about ten thousand quarters of old wheat lying here, but, with the exception of some few lasts, no quantities of rye, barley, or oats. I am also of opinion, that in this neighbourhood there are no stocks of old corn in the hands of the farmers, except probably about one thousand quarters of wheat."

I do not think, that in any part of the world, wheat can be grown and conveyed to this kingdom so cheap as a limited quantity of somewhat less than sixty thousand quarters annually, can be from Mecklenburg; but if efforts were made to increase the quantity from sixty or seventy to eighty or one hundred thousand quarters, it must be at a high cost, both in the expenses of production, from working more land with the same portion of manure, and from an advance which would take place in the freight and other charges.

The farmers are so fully persuaded of this, that they turn their attention gradually more to the breeding of sheep, and to the productions of the dairy; to butter, cheese, bacon, and hams.

The dairies, however, are not so valuable as in many other parts of the north of Europe. I made inquiries of every agriculturist with whom I conversed, relative to the average quantity of butter yielded by each cow. I have reason to believe, taking the whole district through which I have travelled, that each cow does not produce, including those owned by the bauers, or small

occupiers, more than from seventy-five to eighty pounds annually. Stock of Wheat on hand.

Though such a quantity, when sold at 6*d.* per pound, affords but little encouragement, it is better than growing wheat, which, for some years past, has left a considerable loss when sold, instead of leaving any rent to the landlord, or any profit to the farmer.

It is not surprising, that the state of agriculture of late years should have produced in some instances most distressing embarrassments in the pecuniary affairs of those engaged in that pursuit. Economy, and even parsimony, have not been found sufficient to prevent distress; and recourse has been had to the painful step of borrowing on the security of the estates, to relieve the pressure of temporary but irresistible demands.

This has given rise to an institution which may be properly denominated a Land Bank. Land Bank. It is a voluntary association, composed of landed proprietors, each member of which pledges his estate as security for the transactions of the corporate society. All the estates are valued and registered, and an account is kept, in a public office accessible to all, of the mortgages, family-settlements, or other incumbrances, with which such estates are charged.

The association takes money from those who wish to invest it, at an interest of four per cent. It lends money to the members, on the security of the estates pledged, at the rate of four and a half per cent. interest; but in no case, in its loans, exceeds half the amount of the taxed value of the estate. The difference of half per cent. exceeds the expenses of the establishment; and this excess forms a reserve fund to meet contingencies. In a country where there are no public securities, or none that inspire confidence, it is of great benefit that some

Land Bank. safe deposit should be created, in which the savings of the community can be placed at interest, where the principal can be secure, and the interest punctually paid.

The capitals of widows, orphans, and infirm or inactive persons; the reserve funds of civil and charitable corporations; and, in short, all trust monies, of which, even in the poorest countries, the whole mass will be considerable, naturally seek such places of deposit. The estates of this land bank offer such security as is sufficient to inspire general confidence; and it is pleasing to know, that, notwithstanding the depression of the landholders, arising from a train of circumstances which they could neither prevent nor foresee, their integrity and economy have hitherto been such, as to enable them to discharge the interest of the money they have borrowed of the association, and not to have given any cause for that body to seize on their property to recover arrears.

Danish Dominions. The kingdom of DENMARK is divided into two parts, which differ from each other in the race of people by which they are inhabited, in the language they speak, and in the system of administration by which they are ruled. It may be convenient to notice each of the parts of the kingdom in the order in which I visited them.

Denmark Proper. Denmark Proper comprehends the islands of Zealand, Fünen, Laaland, Langeland, Falster, Moen, and some smaller ones, and the peninsular province of Jutland on the continent. The province of Jutland has little to interest any visiter, and nothing to interest one whose chief object is to gain information respecting its surplus produce; for its production and consumption so nearly approach each other, and both are so insignificant, for the extent of territory, that no inducement presented itself to view more of it than the small portion between

the passage over the Little Belt and the boundary of the province of Sleswick. The extent of Jutland is about five million six hundred thousand acres, and the whole population does not much exceed four hundred and fifty thousand souls, thus giving to each person about twelve acres and a half. Fish forms the chief food of a large part of the inhabitants; and the chief aliment of the remainder, furnished by the soil, consists of rye, buck wheat, and potatoes. Some years furnish a small surplus of buck wheat, and more rarely, and in very minute quantities, of rye. The wheat grown is barely sufficient for the consumption of the few persons who can afford to eat bread made of that grain. Mr. Thaarup, a gentleman very conversant in the statistics of Denmark, declares the quantity of wheat grown in Jutland, in the year 1825, to have been thirty-six thousand two hundred and fifty quarters, of which were consumed thirty-four thousand quarters, or about two pecks for each person, leaving for seed, for the succeeding year, a deficiency of about six thousand four hundred quarters, to be obtained from the islands, or from Sleswick and Holstein. Jutland.

The islands, especially Zealand and Laaland, are more fruitful, and enjoy a less severe climate; and though, as compared with the German dominions, the proprietors and cultivators are impoverished; yet, as compared with those of Jutland, they are said to be in somewhat better circumstances. Zealand, the largest of the islands, contains about one million eight hundred thousand acres of land; and the population, including that of the capital, by the last estimate, appeared to be four hundred and forty-five thousand nine hundred and ninety-three, having increased one hundred and fourteen thousand one hundred and ninety since the year 1815. It is generally a

flat country, elevated but a few feet above the level of the sea. The soil is evidently formed from coralines, which have been, in the lapse of ages, converted into calcáreous earth, and covered with sand, gravel or clay, which thus, in some combinations with a mixture of mould, becomes moderately fertile, and is easily worked. The climate is moist and variable, but generally favourable to vegetation. The frosts are seldom severe for a long continuance: and though the Sound and the Belt are occasionally frozen over, it has arisen chiefly from the masses of ice formed in more northern climates, which have first choked up those narrow passages. The spring season is cold and windy; the summer, which begins in June, and ends in August, is commonly very warm, from the shortness of the nights, which do not allow of time for the land to get cool. The autumn is protracted till the middle of October, and is the best season of the whole year.

The climate and soil of the other islands,which together are comprised in Denmark Proper, differ but little in their general character from those of Zealand. Fünen and Langeland form one province or stift, and contain together about eight hundred and thirty thousand acres, with one hundred and sixty-five thousand inhabitants. Laaland and Falster form also a province, extending over about four hundred thousand acres, with seventy thousand inhabitants. These two islands are the most fertile, for their extent, and the most productive in wheat, peas and beans, especially in the two latter.

Although in Denmark Proper, as well as in the duchies, personal slavery has been for several years abolished, there remain many traces of the feudal system, which have a pernicious effect on its agriculture. The lease, or

life, or hereditary renters, are very numerous, and much of the rent they pay for the land is in produce, or in the form of personal services of themselves and their cattle. As they must attend, when called upon, to labour either for their lord or the government, they often suffer in their own pursuits. On the other hand, such duty-work is commonly as ill-executed as possible; so that the system is injurious to both parties, and, through them, to the public.

The high nobility, who are not numerous, being only one duke, nineteen counts, and twelve barons, enjoy some exclusive privileges, and are exempted from some few of the taxes that are levied on the common nobles and the rest of the community. The greatest weight of taxation falls on the land, the occupiers of which also provide men for an army and a navy, much more numerous, in proportion to the population and the revenue, than are maintained by any other state in Europe. They pay tithes, which are collected by the government, and commonly divided into three portions. One of these belongs to the clergyman, one to the church, and one to the king, though there are deviations from this precise partition of them. The clergy have also houses, and glebe-lands of greater or less extent; and, according to the rate of living in the country, and the ranks of society from which they have been taken, are in tolerable circumstances. The land furnishes funds or labour for the maintenance of roads, bridges, and for some of the charitable institutions. There are great complaints of the inequality with which these imposts, whether in money or in labour, are levied.

It is difficult, in a country where rent is paid partly in kind, partly in labour, and partly in money, and the money is paper of a constantly fluctuating value, to ascer-

tain the cost of production, or the rent paid for an individual portion of an individual estate. It is still more difficult to generalise, or form any satisfactory average.

Estate in Fünen.

The particulars of one estate in Fünen, which fell under my observation, are as follow:—It consists of about four thousand five hundred acres, partly meadow, but chiefly arable. The demesne consists of about eight hundred acres, which the proprietor cultivates by means of his tenants. These are in number thirty-six, each holding from sixty to one hundred acres, for which they pay a fixed quantity of corn, and a stipulated portion of labour of themselves and their working cattle. The proprietor furnishes to each tenant six horses, with ploughs and waggons; if the horse dies, the tenant must replace it. The cows belong to the tenant. At whatever period the labour of the tenants and the cattle is required by the proprietor, it must be afforded, however it may interfere with his work on his own land. A substitute can however be sent, who can commonly be hired for about sixpence per day.

The proprietor has for his share all the produce which 800 acres, cultivated without any expenditure, can yield; and the corn paid by the tenants. He has also 150 milch cows, which afford between fifty and fifty-five pounds of butter annually per head, besides a succession of calves and young beasts. He keeps, likewise, a small flock of fifty sheep. The taxes on this property, which are paid by the proprietor, including the king's, the poor, education, bridges, roads, and other local demands, amount to about 220*l.* per year.

Tithes are collected here as on other estates, but the distribution varies from the general practice. Two-thirds are given to the proprietor, and one-third to the parochial minister. According to an estimate which the proprietor

communicated to me, the produce of corn, in a series of years, has been about six times the quantity of seed. No wheat is grown on the estate, but rye, barley, and oats. This property was offered for sale for about 12,000*l.* sterling, including the houses, lake and woods; but as the owner was known to be in embarrassed circumstances, I was told he would gladly take for it 2000*l.* less, if he could even get so much.

I have reason to be satisfied, that most of the proprietors were in a state of considerable embarrassment, and most of the estates deeply mortgaged. Such is the general state of the country, that it possesses little other capital besides the land and the houses in the cities and towns. There are no reserve funds adequate to the loans which the landed proprietors require: for though there is a joint-stock mortgage society, similar to that before noticed in Mecklenburg, Denmark does not supply the means of conducting it favourably. Recourse has been had, by the landed proprietors, to the capitalists in the commercial cities of Lubec, Hamburg, and others, and to that description of persons are the estates most deeply mortgaged. The heirs of one enormously rich capitalist in the last-mentioned city, who lately died, had securities on a great number of estates in Denmark, several of which, when I was there, had been sequestrated for the debts, and, if I can judge from the appearance, and from all I heard, were a dead weight on the hands of those who had got possession by the foreclosure.

The case is nearly the same with the debts owing by the government. They are not, like ours, owing to the citizens of the same state, but to foreigners. The interest, therefore, on the private debts, on mortgaged estates, as well as on the public funds, is not retained at home.

The circulation, in Denmark Proper, is almost exclu-

sively carried on by paper money. The notes of the bank, being exchangeable for silver, maintain a uniform value, correspondent with the intrinsic value of that metal. They are issued of one, five, ten, fifty and one hundred thalers, the thaler being worth, in English money, a fraction more than 2*s*. 1*d*. Neither this, nor any other kinds of paper money, find circulation in the duchies, where all is metallic money. But in Denmark Proper, there is much depreciated paper in circulation of more ancient date than the establishment of the bank (in 1819), which varies in its relative value to the new bank thalers, as much, almost, and from as uncertain causes, as the funds of other countries. Notwithstanding the fluctuation, a royal order is issued every quarter of a year, which fixes, for the succeeding quarter, the rate at which one of these descriptions of paper is to be exchanged for the other, without reference to the actual difference to be found on the exchange. This rule causes an indescribable degree of confusion and embarrassment in all the transactions of buying and selling, and makes it very difficult to ascertain what was the price actually paid for any commodity in past periods.

In a country where there is little foreign commerce, and where no manufactories exist except those of a domestic nature, in which the people spin and weave their own flax and wool to clothe themselves, the embarrassment arising from a bad circulating medium must fall almost exclusively on the landed interests, and such is the case in Denmark, increased by the tax levied on them of six per cent. on the value of all land, which has been imposed to form the foundation on which the bank of Copenhagen is now constructed.

The distress of the proprietors and cultivators of the soil was so great in Denmark a few years ago, that it was

deemed by the government not possible to collect the rents of the royal domains, or the amount of the taxes in money; and corn was taken instead of it for a limited period. The price at which the corn was to be received was fixed by a decree; and as the price afterwards declined, those who, perhaps, could have paid the demands on them in money, found it their interest to deliver corn, especially whatever portion was of such a low quality as to be barely admissible. The accumulation which soon took place in the royal stores, by exaggerated reports of its magnitude, caused a further depression in the prices, and this created such an alarm in Prussia, that a decree was issued from Berlin prohibiting the importation of Danish corn into the provinces of Prussia.

It was this conjunction of circumstances which depressed the price of wheat in the year 1825, till it was only 12*s*. 10*d*. per quarter. The price of rye did not experience the same rate of depreciation, from its finding a constant internal demand. It, however, fell to 11*s*. 2*d*. per quarter,—a great decline, though but a small one when compared with that of wheat. Appendix, No. XIV.

This measure, which was certainly adopted with the most kindly feeling on the part of the monarch towards the distresses of his people, was confined to Denmark Proper, and not extended to the duchies. The accumulation was less than report had rumoured, and, with no export trade beyond the average rate of the preceding seven years, and no deficient harvest, the whole stock was quietly disposed of, so that in October last, when I was in Denmark, there only remained 4,700 quarters of wheat, 7,500 quarters of rye, and 4,800 quarters of barley, with no oats, in all the stores of Copenhagen, Corsoer and elsewhere, in the islands, and in Jutland. Appendix, No. XV.

The surplus wheat of Denmark Proper is inconsider-

able, and that portion of it fit for the English market very small indeed. It appears by the official accounts for the last seven years, up to 1827, that the whole quantity exported has been 200,400 quarters, or 28,625 quarters annually, and this quantity has reduced the stock to 4,700 quarters, not equal to a week of its very limited consumption. The export of rye, barley, and oats, is much greater, having been in the same seven years, as follows:—

Appendix, No. XV.

Rye . . .	987,858	quarters.
Barley . .	1,319,661	—
Oats . . .	356,324	—

Or, on the annual average:

Rye . . .	141,122	quarters.
Barley . .	188,523	—
Oats . .	50,903	—

From the low quality of the wheat in Denmark, from the larger quantity of rye and barley, the latter of a good kind, and from the small produce of Norway, the corn trade of Denmark naturally finds a vent in the ancient channel in which for ages its course had flowed. The least demand in Norway is 100,000 quarters of bread corn, chiefly rye, besides much malt and barley for distillation. In some years the corn of Denmark is sent to Spain, Portugal and Madeira; at other times to Holland; but all the markets are of far inferior consideration to that of Norway.

Appendix, No. V.

The chief portion of corn which appears, by the accounts of our Custom House, to have been imported from the Danish dominions, which in these accounts are classed together, must have been from Holstein and Sleswick. Barley may, however, be an exception, as a larger proportion of that grain is grown in the island than in the duchies; and it is in general of a better quality, when the weather for harvesting it has been favourable.

The increase of population in Denmark, like that of some of the other northern kingdoms, seems to have proceeded with a rapidity unknown hitherto in the old settled countries of Europe. By the accounts of 1816, compared with those of 1825, this increase will be seen. The authority for the returns of the province of Zealand are such as lead to a reliance on their authenticity; and as those of the other provinces bear, in the two periods, nearly the same proportion to it, and to each other, I see no reason for doubting their accuracy, though I am not fully apprised of the exact mode in which the returns are made out. They can scarcely, however collected, be other than an approximation to the real state of the augmentation which has taken place in the period beforementioned:—

POPULATION OF DENMARK PROPER.

Provinces.	1816.	1825.
Zealand - -	338,000	445,993
Fünen - -	127,100	165,200
Laaland with Falster -	56,500	70,000
Jutland - -	410,000	462,000
	931,600	1,143,193

Supposing the same rate of increase to have proceeded in the two years from 1825 to 1827, and there can be no reason to expect the contrary, the present population must have amounted to one million two hundred thousand at the end of 1827, and shows, that, with the same progress, the inhabitants would double themselves in about thirty-two years.

Being aware that a great increase in population had taken place, though my time did not then allow of any minute attention to the details of that increase, or to the evidence on which it rested, I watched carefully in every part of Zealand, of Fünen, and the small part of Jutland,

which I travelled through, between Snoghoi and Hadersleben, to remark the culture of potatoes, which I expected to find very extensive. I was surprised to see very few in the ground, and, as far as mere recollection would warrant it, I should state, that in no part of the north of Europe through which I have travelled, not even in Poland, did the extent of potatoe cultivation appear to be so narrow as in the western parts of Zealand, and in the whole of Fünen. I was the more struck with this from observing the great number of very small farms through the whole country, with barns scarcely capable of containing more hay and corn than would require the labour of a small family to harvest, and where the chief production was either oats or buck wheat, with small patches of rye. The occupiers of such farms seemed in their habitations to have few of the accommodations of even the poorest German peasantry, and to possess only buck wheat and oats for their common sustenance.

Near the cities of Copenhagen, Roskilde, Slagelsee, and Odensee, potatoes seem to be cultivated to about the same extent as near the large towns of Germany; and I was informed, that some islands near the capital were productive of that root, as well as of other culinary vegetables. My remark of the paucity of potatoes applies only to the open country, at a distance from towns, where the population is as dense as in other agricultural districts, and where the aid of that root would appear to be of the greatest importance.

See Appendix XVI. and XVII.

It appears by the Custom House account, for the only years in which I could collect the details, that, in 1825, the whole exports of agricultural produce from every part of this kingdom amounted to 752,076*l.* 5*s.* 4*d.*, of which grain of different descriptions made 476,423*l.* 2*s.* 4*d.*, and the butter and cheese 275,653*l.* 13*s.*

By the accompanying account, translated also from the Danish, it appears, that in the first six months of the same year, the exports from Sleswick and Holstein were, to that of Denmark Proper, in the following proportions; viz. wheat as five to three, flour as five to one, oats as three to one, buck wheat as twenty-four to one, butter as five to one, and cheese as nine to one. On the other hand, the proportions of other grain were greatest from Denmark Proper in the following ratio; viz. barley as five to two, rye as four to one, peas as four to one, and beans as five to three. See Appendix XVIII.

This contrast between the productions of the separate parts of this kingdom serves to show that, as far as concerns the trade in corn with Great Britain, the division of Denmark Proper can have very little influence; for which purpose alone it is here exhibited.

Sleswick and Holstein.

The continental dominions of Denmark, commonly distinguished as the Duchies, comprehending, besides the ancient territories, Lauenburg, which was separated from Hanover by the treaties of Vienna, are a much larger part of the kingdom than the islands, and, in an agricultural view, by far the most important of the possessions of that crown. Jutland, the northern division, and the largest of the continental dominions, is under the same system of regulations as the islands. It is little interesting in any point of view, and especially as far as concerns its produce, which hardly suffices for its own consumption.

Sleswick and Holstein may be taken in one view, their physical circumstances being nearly alike, as well as the inhabitants, who are all of the original Saxon race.

Sandy Soil.

No part of the country is mountainous. In the centre is a tract of poor, sandy soil, thinly inhabited, badly cul-

tivated, growing little corn, except buck wheat and oats, and yielding barely sufficient of those for its own consumption.

Marsh Land.

The western side of the poor land descends gradually to the sea-shore, and there terminates in a stripe of rich marsh-land, varying in breadth, which is defended by strong embankments from the waves. This is an excellent soil, equal to and not unlike our fen-land in Lincolnshire and Cambridgeshire. On this portion of the country oxen are fattened, by the natural grass, to a great size, and afford the excellent meat so well known, when slightly salted and smoked, under the name of Hambro' beef.

The chief corn cultivated is oats, of which the crops are very heavy. Rape is also very beneficially cultivated. The breadth of wheat and of rye is inconsiderable. Much of the land might be appropriated to wheat; but it would require a permanent high price for that species of grain, such as has not been known for many years, to induce the proprietors to break up their old pastures, which have been nourished for a century, and convert them into arable land. Any sudden rise of prices would not be likely to extend the cultivation of wheat on these best soils. The old turf must be reduced to a state of rottenness, or it would choke a crop of wheat. After breaking up it may be sown with oats, and then a year's clean fallow must intervene before the land would be fitted to receive the seed. A year must then pass before the harvest can be secured, and the corn prepared to be sent to market. Thus three years are to be passed, and the expense of a fallow incurred, and with no certainty, and hardly a probability, that the high price of wheat will continue to maintain itself till the expiration of the three years.

In fact, the fattening of cattle, where it can be performed on the spontaneous produce of the soil, is attended with

so little outlay, and commonly with so certain a gain, that no occupier of common judgment will be easily seduced from it into the hazardous pursuits of fallowing, ploughing, and sowing, if a clear gain, however small, can be secured by grazing. In the district under review, the most beneficial course of husbandry is found to be to purchase cattle from Jutland, and other less luxuriant soils, when about two years old; to keep them two years on the second quality of pasture till they have attained their full growth; and then, when four years old, to fatten them on the richest old pastures. Marsh Land.

On the best marsh-land, the dairy is found less profitable than grazing; but on the secondary quality of the soil, that pursuit is very extensively followed.

The eastern division of the two provinces, bounded by the Baltic, is generally well adapted for that kind of convertible husbandry which destines the land to produce corn, butter, and cheese. The soil partakes every where of a loamy quality, but so mixed in different parts with calcareous, sandy, or clayey earths, as to create a great variety, and to be appropriate for either corn or green crops or temporary pasture. The degree of comparative fertility does not far extend inland. In some cases, the heaths approach almost to the shores of the Baltic, especially in Sleswick; in other parts, and much more in Holstein, the track of sandy heath is narrow. One considerable district, which I crossed in several directions, consisted almost wholly of fair average corn land. Its name and history create an interest, being the province from whence Hengist and Horsa, according to the tradition of the country, sailed for Kent, and retaining still the name of Engelland, which it probably, one thousand three hundred years ago, conferred on our island. To the south of that division, from Eckernfiorde, by Kiel, Convertible Soil.

Convertible Soil.

to the territory of the independent state of Lubeck, the fertile land forms a more extensive portion of the whole of the district. Some of it is of excellent quality, well adapted for the growth of corn, and for the dairy; and it yields a surplus of both productions, which, if the taxes were less, and the means of intercourse in more tolerable condition, would raise it to a high state of prosperity. The district is generally inclosed with high hedges; it is well wooded, and interspersed with beautiful lakes. The arms of the sea, extending into the land, in various forms, from their being no tide in the Baltic, give such branches, called *fiorde*, the appearance of lakes rather than estuaries. Although in no part approaching to mountainous, the undulations of the land are sufficient to relieve the monotonous appearance which lakes give to a very flat country; and, in many instances, the hills, covered with woods, rise immediately from the shores of the lakes and the fiordes. It, upon the whole, bears more resemblance to some of the most beautiful parts of England, than any district of the continent which I have surveyed.

This province contains estates of various extent, from five or six thousand acres, down to the small allotments which surround the cottages of those who cultivate a little land, just sufficient to yield food enough for the family who labour upon it. Although the feudal system, as far as regards personal liberty, is totally abolished*, yet the remains of it are in existence to at least an extent equal to what is to be observed among many of our copyholders. Scarcely any rents are paid for by labour, either of man or of cattle; but, in many instances, the payment of it in specific objects of produce still remains.

The larger estates, that are in the occupation of the proprietors, are generally well cultivated; many of those

* See note C at the end.

let to tenants are so likewise; and especially where the proprietor operates upon a portion sufficient to give him a deep interest in its success, and lets the other portions to skilful and diligent farmers, with sufficient disposable capital. Some of the smaller farms, from two hundred to four hundred acres, are most accurately and beneficially worked by the proprietors, or, when that case occurs, by the lessees. Convertible Soil.

One farm of this description, which I visited at Schwensby, in Engelland, was well managed, and appeared to be done with as much attention as any farm I have visited on the continent. The proprietor, Mr. Jverson, with whom I enjoyed much conversation, remembered the topics, and after I had left him, spontaneously and unexpectedly favoured me with a written explanation, which forms the valuable Appendix XX. The details of management are conveyed in so clear and so satisfactory a manner, as to leave no doubt of their accuracy on my mind, who have known the writer; and, I should think, bear such internal marks of exactness, as must obtain credit from those who do not know him.

Count Rantzau and Sir Christopher Echard, whom I had the pleasure to visit at their houses, and Count Von Holstein, whom I had not the satisfaction to meet, have had the kindness to furnish me with clear answers to some written questions which I left with them. These, with other notices from those gentlemen, form a valuable view of the district where they reside, which is within twenty or thirty miles of Kiel. They form the Appendix XXI.

On the north-eastern part of Holstein, Mr. Blohm, a proprietor, but the whole of whose estate is farmed by a kind of hereditary tenants, has very obligingly communicated, by a written memorandum which he gave me,

Convertible Soil.

and an explanatory letter which he afterwards wrote, a statement of the particulars of his property. This forms the Appendix XXII.

Although I visited and conversed with other proprietors and occupiers of estates, scarcely any facts of a material nature presented themselves, that differed from the descriptions of agriculture given in the communications of the several gentlemen whom I have already named.

Mr. Jverson gives the cost of production of corn to be as follows:—

	s.	d.	
Wheat - -	25	7	the quarter.
Rye - - -	18	3	—
Barley - -	17	0	—
Oats - -	9	9	—

Sir C. Echard calculates the cost of wheat to be somewhat more than 26*s.* per quarter. These are the prices it cost on the farm, without leaving any profit. The expense of conveying to a market, where the state of the roads requires four horses to draw only seven quarters of wheat, and where the distance from the market is such as to occupy four, five, or even six days' labour, of four horses and two men, bears a great proportion to the sum for which the whole load can be sold. To this must be added, that when arrived at the place of sale, if not sold, it cannot be brought home again, but must either be disposed of in the most languid state of the market, or warehoused at an expense which still more reduces the net proceeds. This uncertainty of the price which the markets will produce is felt by all continental farmers, and is unknown to ours in England. The latter can take a sample in his pocket, and if a fair price is offered, may sell, or, in the contrary case, defer selling. From his vicinity to the market, he can effect his own

sales, and even before he goes there, nearly anticipate the state of it. The latter must either sell or warehouse his corn, and must employ a factor, or leave the disposal to a waggoner, often very incompetent to the task. It is not wonderful that, under such discouraging circumstances, the growth of corn should become an object of minor importance, to that of producing other kinds of substances. Butter, cheese, wool, flax, meat, and oil-seeds, will naturally excite more attention, because, in the long run, they will be found more advantageous. Convertible Soil.

The wheat of Holstein is not generally of a very good quality; and, probably, when the price in England is 60*s.* per quarter, would not sell for more than 54*s.* or 55*s.*; but of late, though including the expense of conveying to the market, it must have cost the grower near 30*s.*; instead of selling it for a profit on that sum, which ought to have been, at least, 5*s.*, the farmer has been compelled to take from 22*s.* to 24*s.*, and sometimes even much less.

Supposing the farmer to sell without profit, that is, at 30*s.*, the expenses of shipping, the profit or commission of the merchant at Hamburg, the freight, primage, insurance, risk of damage, landing charges, factorage, commission and market dues, would amount to 10*s.* per quarter. When sold in the London market, with an average there of 60*s.*, it would not obtain more than 55*s.*

The wages of labour seem, as in other countries, to be regulated by the comparative price of articles of the first necessity. Count Rantzau states the rate of a labouring man's daily wages to be, in the winter, till the season of spring, 7*d.* during that time, and till hay-making, from $7\frac{1}{16}d.$ to $8\frac{3}{4}d.$; in the hay and corn harvest, $10\frac{1}{2}d.$; during the autumn sowing, $8\frac{3}{4}d.$; and for the Wages.

Wages. remainder of the year, $7\frac{1}{16}d.$ They have no food; but those who live on the estate are provided with a cottage, for which they pay a trifling rent; and sometimes they are furnished with a quantity of fuel, probably at a cheap rate. Mr. Jverson gives nearly the same rate; viz. $10\frac{1}{2}d.$ in harvest, $8\frac{1}{4}d.$ in summer, and $7d.$ in winter. Like every prudent and economical farmer, he boards and lodges his regular men, and pays to the head man 6*l.* 2*s.*; and to the others 4*l.* 10*s.* each, yearly wages.

The wages on Mr. Blohm's property are higher, but they are likely to be influenced by the vicinity of the city of Lubeck, near to which the estate is situated. As far as I can judge, the state of the labouring agricultural inhabitants, making allowance for the inferior descriptions of food, clothing, and dwellings, with which they are supplied, is somewhat that of greater indigence than is experienced by the same kind of labourers in this country. I rather think there is a greater variety in the condition of our labourers, than in that of those in poorer countries; that with us a greater proportion of the whole number, by industry and economy, raise themselves or their offspring from the low to a higher condition, than is to be observed in other countries. The quantity of labour performed by workmen in the various operations of husbandry, will be found, on comparison with most parts of England, to be inferior; but it appeared to me, that the imperfection in the manner of performing each operation was more below ours than the quantity of work. The meadows seem to be worse mown, the corn less firmly bound in sheaves, and less cleanly thrashed out, and the land to be worse ploughed and harrowed.

I must except from these remarks the estate of Mr.

Jverson, of Count Rantzau, of Baron Voght, and some others, and apply it only generally, as they presented themselves, to my hasty or transient view.

In noticing the value of the land, I confine myself to those districts of Holstein and Sleswick which are the most capable of producing a surplus of corn, omitting the sandy lands in the centre of the province, and the rich grazing land on the borders of the German ocean. The estimate of Mr. Jverson makes the value of the arable part of his land alone, when neither the buildings nor the woods are included, to be worth only 950*l.*, which, on two hundred and thirty-four acres, is little more than 4*l.* per acre; yet his is good land, and in excellent cultivation. He estimates his thirteen acres of wood to be worth 350*l.*; and the buildings, which cost much more, at 1,220*l.* The value seems to have vastly declined within the last twenty years. If I may be allowed to judge, the depreciation on the mere arable land, the woods, buildings and stock, being of the same value at present as at that time, must have been more than one half. Value of Land.

I apprehend the rent of land in the country of which I am writing is, as in other countries, higher than its real value, when estimated in money, or when compared with the money-price of other commodities, or with its profitable proceeds. The independence which arises to farmers, as long as they can pay the rent to the proprietor, has its peculiar charms to those accustomed only to a country life; the number of such who have sufficient capital to cultivate but not to purchase land is greater in Holstein than in most other parts of the continent; and hence, when an eligible farm is to be let, the competitors raise the price above its intrinsic value, in spite of the warnings which numerous failures have given. A young Rent.

Rent.

man, with a capital from 500*l.* to 1,500*l.*, can establish himself on a large space of ground with it, as the cattle, stock, and implements, are the property of the owner. He needs only to have sufficient for the advance of a year's rent beforehand, which is required by the proprietor for his own security, and sufficient to pay the trifling current wages. If he lets the cows to a dairyman, he obtains from him some part of the rent in advance; or if he conducts the dairy himself, the weekly sale of butter will supply him with a small amount of ready cash. A farm in England of 1,500 acres, would require, at least, a capital in the tenant's hands, of from 5,000*l.* to 6,000*l.*; whilst in Holstein or Sleswick one quarter of that amount would be amply sufficient.

The rent of whole farms, including the buildings, woods, turbuary, fishing, when there is any, and the other accompaniments, may be averaged at about 13*s.* or 14*s.* per acre. The proprietor generally pays the taxes, which amount to about 4*s.* per acre, but varies in an extraordinary degree, from the want of a modern survey and valuation. Thus, Mr. Jverson states, that "the difference existing in the taxation of lands of equal quality is, perhaps, more than 100 per cent." He adds, "there are farms burdened with an equal amount of taxes; the one of which may be worth 85*l.*, and the other 850*l.* sterling." After deducting the taxes, the insurance against fire, and the repairs of the extensive buildings, the expenses of the church, the schools, and of the justiciary, the net proceeds to the proprietor are often very trifling when compared with the extent of the land.

See Appendix XXII.

The estate of Mr. Blohm is an exception to these observations. The soil is very good, the tenants or copyholders are in respectable circumstances, and have a

property in the land, and it is situate in that part of Holstein which comes in direct contact with the city of Lubeck, which furnishes a market, both by its internal consumption, and its access to the markets of distant countries.

The labour on the highways is all performed by the occupiers and their teams, or by men hired by them for that purpose.

Bank of Copenhagen.

The paper currency of Denmark having sustained a great depression, it has been deemed necessary to establish it on a firmer footing by the institution of the bank of Copenhagen. To form a solid capital for this bank, a tax has been levied of six per cent. on all the property of the dominions in houses and lands. When the proprietors could not advance the requisite sum, it has remained as a mortgage on the property, chargeable with interest; but as the interest charged was higher than the current rate at which money could be borrowed, almost the whole sum has been paid up, and the bank has gained a degree of credit and stability which it can only lose by having its funds diverted from the peculiar objects of banking, to the pecuniary assistance of the wants of the government.

This tax, however, is a general subject of complaint among the landed proprietors in the Duchies of Sleswick and Holstein, who think they derive no advantage from the bank, and whose notes do not circulate in their districts.

I have too little acquaintance with the detail of this kind of impost or of any impost laid for such a purpose, to give any opinion, if I were called upon, which I am not, as to its wisdom and justice, or the contrary. I merely notice it as one of the subjects of complaint among the landed proprietors; though, I must add, some

of the most enlightened of the number gave it their fullest and most unequivocal approbation.

The estates which came under my nearest observation in Holstein, were certainly cultivated with a care far beyond the common rate of the husbandry of the province; and their productions are, in conformity to it, much more abundant than a fair average of the whole agriculture would warrant me in assuming. Most of those farms may be stated to yield in wheat nearly ten-fold the quantity of seed. It may be doubted if the whole land, taken together, gives an increase in more than a six or seven-fold degree. The small parcels in the hands of the peasants, who were formerly *adscripti glebæ*, and are now a kind of copyholders, or hereditary lessees, are very ill managed, and commonly slightly productive. Many even of the larger estates, from the want of original capital, or from the great losses their owners have suffered, are imperfectly managed, and render inferior returns for the labour bestowed upon them.

The surplus corn of Holstein and Sleswick, taken together, for the last seven years, viz. from 1820 to 1826 inclusive, appears to have been,—

530,531	quarters	wheat
381,569	—	rye
524,658	—	barley
916,508	—	oats,

See Appendix XV.

Or in the average period of each seven years has been,—

Wheat	78,602	quarters annually
Rye	54,707	—
Barley	74,971	—
Oats	130,729	—

It thus appears, that the export of wheat and oats from the two duchies of Sleswick and Holstein, exceeds

that of all the rest of the Danish dominions, whilst it falls very far short of the quantity of rye and barley.

The chief export of the two Duchies consists of the products of the dairy, the value of which, in butter and cheese, exceeds that of corn, to which is to be added that of the salted pork and hams. Thus, in the first six months of the year 1825, when the whole exports of the dairy from the kingdom were 4,671,260 lbs. of butter, and 596,100 lbs. of cheese, those of Sleswick were 933,780 lbs. of the former, and 192,850 lbs. of the latter; and those of Holstein 2,771,460 lbs. of butter, and 309,750 lbs. of cheese. Though butter and cheese have declined in price, as well as salted beef and pork, it has been only at the rate of 30 per cent., when the prices of the three years 1817, 1818, and 1819 are compared with those of 1825, 1826, and 1827. In the same periods the prices of wheat and other corn have fallen more than 50 per cent., as appears by comparing together those of the same two series of three years each. See Appendix XVIII.

The value of the butter seems to vary in each year, according to the season in which it is made. It is divided into four classes; viz. winter butter, or that made whilst the cows are stall fed; fresh milk butter, that made after the cows have calved, but before they are turned out to grass; summer butter, made in June and July; and stubble butter, that made from the 1st of August to the period when the cows are taken into the stalls for the winter.

The produce of each of the four periods is estimated to be,—

Winter Butter . . .	2	parts in	20
Fresh Milk Butter . .	4	—	20
Summer Butter . .	7	—	20
Stubble Butter . .	7	—	20

On each farm that I visited, where the dairy was an object of importance, I inquired and noted the average yearly quantity of butter made from each cow, because I considered it one of the tests by which the state of the soil and cultivation might be compared. I found the variation to be from 50 lbs. to that of Count Rantzau, which he states to be 131 lbs. Danish, or 140 lbs. English, and which was the greatest I met with.

I thought the management of the dairies in Holstein remarkably good, certainly far better than in Mecklenburg, or in Denmark. The operations seemed to be carried on with all the cleanliness, and, if possible, with greater economy than even in Holland, from whence the practices were originally derived.

Kiel. The chief port for shipping corn is Kiel, but from the situation of Hamburg, though out of the Danish territory, a larger portion is consigned to that market than to Kiel. This latter city enjoys great advantages, from the excellence of its harbour, and from the facility with which vessels can be loaded directly from the corn magazines. The chief corn exported from Kiel to Great Britain is sent to Leith, Gainsborough, and Hull. Much rape-seed is grown in the country, the greater part of which, though some is crushed for oil at home, is consigned to Holland.

When I went through the corn warehouses, 1st October last, I ascertained that there was no stock of rye, barley, or oats in them, and only about 5,000 quarters of wheat, some of an indifferent quality, but all engaged for exportation to Hamburg and Holland. By a letter from Mr. Lea, the vice-consul, communicated to me by Mr. Canning, dated the 2d January, I find the following statement:—

"The stocks of grain noticed in my letter to you of

the 26th of October, are worked off for shipments to different countries; but, by deliveries from the farmers during the last two months, are nearly replaced. I will observe, we have no old stocks of grain left in this country, or in any part of Denmark; and that a portion of last harvest, particularly oats, has been worked, for export for England, and for home consumption."

Hamburg.

The city of HAMBURG is an important object, as far as regards the commerce in grain, both because it is a great entrepôt, where the corn of the north of Europe is deposited, to wait for the best markets in the south, and because it is the natural opening by which that grown on both banks of the protracted river Elbe finds its vent. Although its own territory is small, and quite insufficient to supply the requisite quantity of grain for its own consumption, yet it is the channel by which a part of the corn of Mecklenburg, Anhalt, Dessau, Magdeburg, Saxony, and even, in dear times, of Bohemia, is conveyed to the distant parts of the world.

In this city, I was so fortunate as to have the useful assistance of Mr. Consul-General Canning, who, with zeal and industry, to which this Report is much indebted, afforded me, voluntarily, every aid I could wish, and much more than I should have ventured to have requested. The several papers in the Appendix, with his signature, give but insufficient proofs of the many facts for which I am beholden to him.

Cost of housing Corn.

As a depôt for corn to be shipped for other markets, it became desirable to ascertain the expense of receiving, of storing, of re-shipping, and of the waste in quantity, which corn suffers by being placed in warehouses till

foreign markets open for it. It will be seen by the Appendix, XXIII. and XXIV. that the expense of taking corn into the store is 9*d.* per quarter; of taking out of store is 8*d.* per quarter; and that the rent is 2*d.* per quarter per month. The loss in measure, varying according to its dry or damp condition when received into the warehouses, is stated to be, in the first year, from three to four per cent., and in each of the succeeding years from one and a half to two per cent. Besides these expenses, that of insurance against fire, with the stamp duty, amounts to three quarters per cent. per year.

See Appendix XXIII. & XXIV.

Waste in Measure.

Appendix XXIV.

Exports and Imports.

The whole export of wheat from Hamburg during the last ten years, from the 1st of January 1818 to the 1st of October 1827, have been as follows, viz.:—

See Appendix XXV.

	Exported quarters.
To Great Britain	403,535
France	6,501
Spain	79,750
Bremen	385
Holland	9,372
America	1,749
By the Elbe and by land	174,482
	675,774
Of this quantity the supply was,—	
By sea	51,766
By craft ascending the Elbe	116,754
By land from Holstein	73,062
	241,582
	434,192

leaving as the surplus of the wheat on both banks of the Elbe above Hamburg, after deducting the consumption of the city in the ten years, 434,192 quarters, or an annual efflux of 43,419 quarters. It is gratifying to observe, that the exports of corn in British ships from the port of Hamburg, in the year 1826, exceeded the whole quantity shipped direct for this country; and that

British Ships employed in the Corn Trade.

therefore British vessels were not only used in the direct trade to this kingdom, but in conveying corn from Hamburg to foreign countries. This will appear by comparing the quantity of corn shipped for England, as stated in the Appendix, XXV., with that which is shown, by Appendix XXVII., to have been loaded in British vessels.

I am disposed to believe, that a regular trade in corn, diffused equably over all times, with a due protection to the home grower, would be more beneficial to the shipping interest than the present state of affairs. As the law now stands, very great despatch is required in loading corn, so as to reach our ports during the short periods which they are kept open. Vessels of the smaller sizes and of inferior adaptation for the secure conveyance of grain, are commonly to be found in the shipping ports in great numbers, and the pressing nature of the trade employs them. If the ports were open at all times, with whatever rate of duty, the shipper, not being pressed in regard to time, would make use of larger vessels, and those of a better description than they now employ; and in that kind of competition our merchant ships have nothing to fear from their foreign rivals.

Kingdom of Hanover.

From Hamburg, over the Elbe, I passed through the whole length of the kingdom of Hanover. In the northern part, from Hamburg to Zell, and indeed nearly to the city of Hanover, the soil is generally a poor sandy heath with few cattle, except sheep of an inferior race, and some few cows. To the south of the capital the soil improves, and is, for the most part, a moderate description of lightish arable land. In proceeding farther south beyond Einbeck, the soil becomes still more productive; and around Göttingen, and from thence to the Hessian frontier, is generally, especially in the valleys, a very fine, and, when cultivated, a productive district. I had visited this kingdom

Kingdom of Hanover.

eight years before, and the recollection of its then state enabled me to remark a considerable improvement in every part, as far as regards the cultivation, the dwellings, the cattle, and the roads. All exhibit marks of a progress which can only arise from a mild, stimulative, and protective administration. Some of the communal lands have been freed from their feudal restrictions, and brought into cultivation; and even on the sandy heaths many proofs of improvement are obvious, in the new houses and farming establishments, in the great breadth of potatoes and turnips, and in extensive plantations of pines and firs.

Here, as elsewhere, the progress of cultivation was obvious on even the slight attention I could give to it during a short stay; but the reports of the increased population naturally excited a desire to compare the increase of the consumers with that of the increase of production. His Royal Highness the Duke of Cambridge, and the ministers of the kingdom, evinced every disposition to satisfy any inquiries I might be disposed to make; and I was assured that ready attention would be paid to any desires I might express for accounts; and that answers should be forwarded, as far as they could be framed with exactness, to any questions I might leave in writing. I was anxious to ascertain the number of additional acres of land which had been brought under the plough in the ten years from 1816 to 1826, and thus, to see if culture had kept pace with, had preceded, or had followed the rate of increase in the number of consumers.

The Report from the Board of Taxation, in the Appendix, XXXV., though evidence of the liberal intention of the government, does not show, even in the provinces whose cultivated land is indicated, any means of forming a comparison between the two periods of 1816 and 1826,

The population census shows an increase in the ten years under consideration, at the rate of 12 per cent.; at which pace, without acceleration, the inhabitants would be doubled in 55 years. See Appendix, XXXVI.

Although it is well known that the province of East Friesland, annually, and the Duchy of Bremen, frequently, produced a surplus quantity of oats, yet I had been induced to form an opinion, on viewing the country and considering its population, that Hanover yielded a very small, if any, surplus of bread corn. It became desirable to ascertain, if possible, the quantity of the different kinds of grain that had, in each of the last ten years, been imported and exported. The extensive frontier which it presents on the land side to several other states, and the regulations of those internal custom-houses which are placed at the boundaries, have made it impossible to frame accurate accounts for the series desired. The Board of Customs, in their Report to the Cabinet Council, have pointed out the obstacles which opposed themselves to such an account; but have presented one which, as far as it goes, is at least satisfactory evidence to confirm the opinion I had been led to adopt. It appears by it, that in the year from 1st October 1825, to the 1st October 1826, the imports of bread corn exceeded the exports in a small degree; that 8,179 quarters of wheat, and 10,153 quarters of rye more was imported than exported. The harvest of 1825 was deficient, as far as regarded oats and barley, but was a fair average as regarded wheat and rye. Though it would have been more satisfactory to have obtained the accounts for a series of years, yet this return for a single year, distinguished by no peculiar deficiency or abundance, is presumptive proof that there is no surplus of bread corn produced in the kingdom of Hanover. The mining region of the Hartz scarcely grows any corn; See Appendix, XXXVII.

and when I was at Osterode, I found in the magazine some thousand quarters of rye, brought from other parts, laid up as a winter provision for the inhabitants of that severe district. The advance in the price of rye, the common bread corn, when compared with the advance in wheat, which is only used as a delicacy, gives additional reason to apprehend, that the increase of consumers of the former grain presses on the quantity of bread corn actually grown. Thus, the average price of wheat from 1816 to 1826, was 33 per cent. above rye; and in 1826 and 1827, was not 10 per cent. above it.

See Appendix, XXXVIII.

Production and consumption of corn in Great Britain.

Few subjects admit less of correct statistical exhibition, than the actual quantity grown of an article so fluctuating in its produce as corn. It is, however, desirable to attain as near to correctness as possible, in order to guard against such errors in legislation as may have an injurious and permanent effect on the prosperity of the whole community. It is desirable also, as a means of bringing to the touchstone of facts the various opinions which have been promulgated of the influence of extraneous matters on the high or low prices of corn in different years. Thus, the importation of foreign corn, the gradual extension of potatoe culture, the variation in the relative value of the currency of the country, with other causes, have been represented to bear with great power on the prices of corn. If the actual quantity of corn could be yearly ascertained, it would become more easy to calculate the influence of these extraneous causes, and to measure them with what is the greater cause—the annual fluctuation in produce.

It is with this intention that I venture to submit to

your Lordships, some estimates, not indeed of the actual quantity of corn produced each year of the last twelve from our own harvests, but, of the relative productiveness of each year of the series to the others. The scale, as framed, may be adapted to any quantity which may be supposed to be the average consumption of the country for each year; the quantity consumed being a less doubtful, though ever a doubtful one, than the quantity produced. I have calculated the effect of the scale on the supposition of an annual consumption, exclusive of what is used for seed, of twelve million quarters of wheat, though I have reason to believe, what is used as food, somewhat exceeds that quantity. As the scale is framed chiefly for the purpose of comparison, it was desirable to adopt for the average, a number easily divided into fractional parts.

Production and consumption of corn in Great Britain.

In collecting the facts on which the scale is framed, a variety of methods have been pursued, the results of each of which have been examined, and then, compared with each other, made use of to form the final result to which they have all led.

Your Lordships are aware, that there are several individuals in this country, possessing large capitals, which have at particular seasons been employed in the trade in grain, who are in the practice of estimating the produce of each harvest, and the quantity remaining in stock in the whole kingdom. At the beginning of the harvest, such persons, either by their experienced agents or themselves, inspect the state of the crops through the several corn districts, compare and register their remarks, and avail themselves of the combined facts, when brought into a focus, to regulate their subsequent sales and purchases of grain.

As such individuals are neither influenced by political, party nor theoretical views, but directed solely by their

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own pecuniary interests, their judgments are likely to be founded on a simple view of mere facts, to be quickened by the desire of gain, and to be improved by the annual practical surveys they take. I have been fortunate enough to obtain from several of these parties the conclusions to which in each year they have arrived, and feel myself indebted to them for the clearness and frankness with which they have communicated, under a caution against bringing their names before the public, the estimates on which they have relied, and intend hereafter to rely, as the means of their individual benefit.

By an extensive correspondence with almost every part of this island, I have been enabled to collect a great number of accounts of the actual amount of the quantity of wheat grown in each of the twelve years in question, by individuals who cultivate the soil, and keep regular books of produce and sales. If I relied on such accounts, as to the actual produce of wheat in the whole kingdom in each year, I should most enormously miscalculate our annual growth; they would show an average number of bushels per acre, very far exceeding what a true statement would exhibit; the fact is, that such accounts as I have been favoured with, are returns from the best informed men on the best cultivated farms in their several districts.

Although a calculation of the absolute quantity produced, resting on such accounts, would mislead, yet for the purpose of framing a scale of the proportional productiveness, they may be trusted to with some degree of confidence.

I am disposed to yield the greater confidence to them, from seeing that, differing greatly as the several farms do from each other in their average produce in the series of years, they nearly coincide, with very slight variations, as

to their relative productiveness, in each individual year. On farms, for instance, which have, on the average of the twelve years, afforded but twenty-one bushels of wheat per acre, when compared with others whose average during the same years has been thirty-two bushels the acre, I observe, that each year has borne nearly the same proportion to the other years in every instance. Thus, on every one of the farms, the year 1820 exceeded by far the most the average of the whole years of the cycle, and the year 1816 fell the most below the same average. The years of intermediate productiveness vary little from each other in the several accounts in my collection. Production and consumption of corn in Great Britain.

I have collated all those accounts, and formed from them an average; and compared that with the average derived from combining together the estimates of the several annual surveys of the speculative merchants. The result of this comparison has led me to depend with some confidence on the scale which I have framed from the junction, which I now submit to your Lordships' consideration.

In order to discover any error in the formation of the scale, I have compared it with the remarks collected by Mr. Tooke, in his valuable work on "High and Low Prices;" and with the accounts of the same years scattered, though vaguely, through the several periodical agricultural journals which are published both in England and Scotland.

I beg here to make one remark, which has occurred to me, from examining and comparing the returns of the crops of Wheat on so many farms, and in the counties of England most distant from each other—It is that the influence of climate, or whatever else may influence productiveness, seems to be very equably distributed over the whole of England. Thus the same years which show

Production and consumption of corn in Great Britain.

the highest degree of productiveness in Northumberland and Durham, are found, in Hants and Somerset, to have yielded the largest crops, and the years which have been the least productive show the same comparative degree of deficiency in the same two distant districts.

A SCALE of PRODUCTIVENESS as far as regards the crop of Wheat in each year, from 1816 to 1827, both inclusive; in which the number 240 is used to represent the portion of Wheat here supposed to be consumed in each year, for food in Great Britain:—

YEARS.	Number, indicating the proportion.	Supposed quantity of Wheat grown in each year, according to the rate.
1816	180	9,000,000 Quarters.
1817	234	11,700,000 —
1818	240	12,000,000 —
1819	250	12,500,000 —
1820	320	16,000,000 —
1821	252	12,600,000 —
1822	270	13,500,000 —
1823	220	11,000,000 —
1824	230	11,500,000 —
1825	254	12,700,000 —
1826	260	13,000,000 —
1827	246	12,530,000 —

Although the preceding Scale goes back no farther than to the harvest of 1816, it is to be borne in mind, that the crop of the year 1813 was one of a most abundant character; the harvest of 1814 was a full average; and that of 1815 abundant, but a little inferior to that of 1813. When the calamitous harvest of 1816 occurred, the excess of the three preceding years had been preserved, and formed an accumulated store, which providentially prevented a dreadful scarcity, if not a famine, in the greater part of 1817.

According to the best estimate I can form, grounded

on the opinion of persons interested in knowing, as accurately as possible, the state of the stock of wheat on hand at the commencement of each harvest, there was, when that of 1816 began to be reaped, about 6,150,000 quarters of wheat to spare of former years' growth.—Upon the assumption of that quantity being in the country, for the accuracy of which I must depend on those most conversant with the subject at that time, the following calculation of supply and demand, from 1816 to the present time, is framed :—

			Quarters.
Harvest of 1816.			
Stock on hand of preceding years			6,150,000
Importation			772,330
Produce of the harvest			9,000,000
			15,922,330
Deduct for the consumption of 13,200,000 persons :—			
		Quarters.	
For food		11,180,000	
Used for seed		1,300,000	
			12,480,000
Harvest of 1817.			
Stock on hand of preceding years			3,442,330
Importation, Ireland	103,107		
Do. foreign countries	1,635,593		
		1,738,700	
Produce of the harvest		11,700,000	
			13,438,700
			16,881,030
Deduct for the consumption of 13,400,000 persons		11,370,000	
For seed		1,300,000	
			12,670,000
Harvest of 1818.			
Stock on hand of preceding years			4,211,030
Importation, Ireland	151,854		
Do. foreign countries	580,949		
		732,803	
Produce of the harvest		12,000,000	
			12,732,803
			16,943,833
Deduct for the consumption of 13,600,000 persons		11,550,000	
For seed		1,300,000	
			12,850,000
Carried forward			4,093,833

			Quarters.
	Harvest of 1819.		
Stock on hand of preceding years brought forward			4,093,833
Importation from Ireland	403,049		
Produce of the harvest	12,500,000		
		12,903,049	
			16,996,882
Deduct for the consumption of 13,800,000 persons	11,730,000		
For seed	1,300,000		
		13,030,000	
	Harvest of 1820.		
Stock on hand of preceding years			3,966,882
Importation from Ireland	567,495		
Produce of the harvest	16,000,000		
		16,567,495	
			20,534,377
Deduct for the consumption of 14,000,000 persons	11,910,000		
For seed	1,300,000		
		13,210,000	
	Harvest of 1821.		
Stock on hand of preceding years			7,324,377
Importation from Ireland	462,963		
Produce of the harvest	12,600,000		
		13,062,963	
			20,387,340
Deduct for the consumption of 14,200,000 persons	12,090,000		
For seed	1,300,000		
		13,390,068	
	Harvest of 1822.		
Stock on hand of preceding years			6,997,340
Importation from Ireland	400,068		
Produce of the harvest	13,500,000		
		13,900,068	
			20,897,408
Deduct for the consumption of 14,400,000 persons	12,270,000		
For seed	1,300,000		
		13,570,000	
	Harvest of 1823.		
Stock on hand of preceding years			7,327,408
Importation from Ireland	356,408		
Ditto from the Colonies	10,652		
Produce of the harvest	11,000,000		
		11,367,060	
Deduct for the consumption of 14,600,000 persons	12,450,000		18,694,468
For seed	1,300,000		
		13,750,000	
Carried forward			4,944,468

		Quarters.
Harvest of 1824.		
Stock on hand of preceding years brought forward		4,944,468
Importation from Ireland	396,409	
Ditto from the Colonies	14,829	
Produce of the harvest	11,500,000	
		11,911,238
		16,855,706
Deduct for the consumption of 14,800,000 persons	12,630,000	
For seed	1,300,000	
		13,900,000
Harvest of 1825.		
Stock on hand of preceding years		2,955,706
Importation from Ireland	314,851	
Ditto from the Colonies	123,427	
Admitted from Foreign Countries	372,918	
Produce of the harvest	12,700,000	
		13,511,196
		16,466,890
Deduct for the consumption of 15,000,000 persons	12,810,000	
For seed	1,300,000	
		14,110,000
Harvest of 1826.		
Stock on hand of preceding years		2,356,890
Importation from Ireland	404,112	
Ditto from the Colonies	28,999	
Admitted from Foreign Countries	268,234	
Produce of the harvest	13,000,000	
		13,701,345
		16,058,235
Deduct for the consumption of 15,200,000 persons	12,990,000	
For seed	1,300,000	
		14,290,000
Harvest of 1827.		
Stock on hand of preceding years		1,768,235
Importation from Ireland	396,018	
Ditto from the Colonies	49,667	
Admitted from Foreign Countries	511,344	
Produce of the harvest	12,500,000	
		13,457,029
		15,225,294
Deduct for the consumption of 15,400,000 persons	13,170,000	
For seed	1,300,000	
		14,470,000
Estimated stock at the harvest 1828.		755,264

Production and consumption of corn in Great Britain.

This view of the small quantity left in store, is confirmed by the testimony of a very considerable number of persons to whom I have written in every part of the United Kingdom, including the Inspectors of Corn Returns, in the several market towns. The inquiry was, If there was as much wheat in their respective vicinities at the harvest of 1827, in the hands of farmers and dealers as usual? The replies to this inquiry was at the following rate: One hundred and forty-two stated, there was much less; and many of them, very much less than ever was known before; twelve stated, that the quantity was much the same; and five of them asserted there was rather more than usual.

No one can be more aware than myself of the errors to which an implicit confidence in the preceding table would lead. I have not formed it to obtain that confidence in it as a whole, which it is impossible I can myself feel. It may, however, deserve a considerable degree of attention, as a clue to the development of some important views. In the estimated increase of our population, in the period of the last twelve years, there can be no misstatement, or at least none, except to a very insignificant extent. The relative productiveness of the several years, being framed from as great a variety of facts as could be collected, is not likely to be very far from an accurate view. The statements relating to absolute quantities, are certainly only unauthoritative conjectures. There are no satisfactory notices in this country, of the number of acres destined to grow bread corn, nor even of the number under arable cultivation. There are no means of forming any judgment of what the average acreable produce of wheat is, or what rate of increase of the seed is gained. I have seen returns of farms, where, in some seasons, the seed has yielded six-

teen grains for one, and others, where they have not exceeded five and a half for one.

Production and consumption of corn in Great Britain.

In the table, the increase of wheat is assumed to be at the rate of nine times the quantity of seed. It is a mere conjecture, and impossible to be either proved or disproved, without much more knowledge than we at present enjoy.

It is equally difficult to determine what is the annual consumption of wheat. It has been usual to estimate it at one quarter per year for each person, calculated on the number of quartern loaves, allowed by the magistrates weekly, to paupers, in some local districts. In the table, it is estimated lower, or at somewhat more than six bushels and a half for each person. It would be equally as difficult to defend either of these rates of consumption, as to fix determinately what the rate really is.

Although some facts are incapable of strict proof, yet, those in the table that are ascertained, such as the number of consumers, and of those that are highly probable, such as the comparative productiveness of the different years, lead to considerations of an important nature.

The comparative productiveness of the year 1820, to the year 1816, was as sixteen to nine, or, according to the rate here assumed, a difference of seven million quarters of wheat. The greatest quantity of wheat ever imported in one year from all parts of the world, including Ireland, was 1,738,000 quarters. The whole import during the last twelve years under consideration, amounted to 6,780,000, or, on an average of the years, to about 565,000 annually.*

The fluctuation in the character of different years, is seen in the produce of wheat, to be about equal to the average annual quantity that has been imported; the whole quantity in the twelve years is not equal to the

* See note D at the end.

Production and consumption of corn in Great Britain.

difference in produce between two years out of the twelve. From these data may be inferred, how little the influence of importation from Ireland and foreign countries, on the price of wheat, can have been when compared with the influence exercised by the greater or less production of our own soil. The alteration made in the currency by the removal of the bank restriction, seems to have had an undue degree of influence attributed to it, in affecting the prices of corn. The exchangeable difference of value between our paper currency and the metallic money, as almost demonstrably proved by Mr. Tooke, did not in the first twelve years of the restriction exceed four per cent., nor on the average of the five succeeding years more than twenty per cent.; and the difference of produce in corn between two of the years of the series we have reviewed, was eighty per cent. Whatever may have been the effect of the bank restriction to raise prices, on the whole period of seventeen years, during which it was continued, it must have been very inconsiderable, when placed in contrast with the effect caused by the variations in the productiveness of seasons, during the twelve years since the restriction has been removed.

The increase of inhabitants to be subsisted, as shown in the table, is not a matter of estimate, but of simple numeration, in which no error of importance can be made. If this increase should continue at the same rate, which there seems no reason to doubt, and if the consumption of wheat keeps an equal pace with it, which there is every reason to expect, we must very speedily reach a point where the supply will fall short of the demand, without taking into consideration those years which must be expected to occur, in which our harvests may prove more or less deficient. The cultivation of potatoes is looked to as a useful remedy, to protract the consump-

tion of scanty harvests of corn; but that kind of sustenance when adopted, not as a remedy against an occasional evil, but as the principal instrument for the subsistence of a country, seems to be calculated rather to increase the number of its consumers, than to increase the supply of a better kind of food.

Production and consumption of corn in Great Britain.

In the countries of Europe, where the greatest proportions of those, who have no property but the daily labour of their hands, upon which to subsist, are to be found, we find also the most rapid increase in the number of the inhabitants. In Prussia, in Denmark, in Russia, and the other parts of the continent, which are obviously the poorest, as well as in Ireland, the increase of inhabitants, living chiefly on potatoes, has been so much greater than the increase of capital to afford them employment, that when an unfavourable season for their chief sustenance occurs, the extent of want and suffering is enlarged in a most alarming degree; in a degree felt with most oppressive weight during the period between the uselessness of the old and ripening of the new crop.

The Hanoverian government keeps accounts, as well of the annual produce of the harvests, as of the kind of crops cultivated. It appears, that in a number of bailiwicks of that kingdom, the returns from which I have been enabled to procure, the increase of inhabitants in the years from 1817 to 1826, has been 12,006 individuals; that in the same period, the increase in the number of acres cultivated with potatoes has been 945, or that the increase in consumers has been between nine and ten per cent., whilst that of the acres destined for potatoes, has been between five and six per cent. No great stress can be laid on this statement, though it shows that the growth of the root in question has not been proceeding with that extraordinary pace which many have supposed. I think

See Appendix, XLVI.

See Appendix, XLVI.

the potatoe culture has been as much extended in Hanover as in any part of the continent I have visited. They are used very generally for making ardent spirit, as well as for food both for man and cattle.

In very poor countries, the culture of potatoes, though not perhaps a remedy for the evil under which they labour, and even possibly one among others of the causes of that evil, can, in their present circumstances, not be dispensed with, or in any degree be diminished.

It is not to such a state that we are called upon to look in Great Britain; our labourers are not compelled to subsist on the lowest kind of food. Even the most indigent, those who are supported by the local poor-rates in their own dwellings, such as are placed in poor-houses, workhouses, hospitals, and other receptacles for indigence, are not, like those in similar circumstances, in poorer countries, compelled to live exclusively on potatoes. All of them are fed with corn of some description, and in the south of the island almost wholly with wheat. Those, a little above absolute want of, or whose feelings forbid them to apply for, parochial aid, may sometimes suffer more than those who receive it; but this class comprises a very small proportion of the whole inhabitants of Great Britain, and it is among them that the greater use of potatoes has been chiefly extended.

In the absence of the knowledge of many facts relating to the extended culture of potatoes, in most countries, it is difficult to conceive that, whilst from 1816 to 1828, our population has been augmented by upwards of two millions consumers, the additional food supplied by potatoes can have fed one quarter of that number. If the whole quantity of potatoes were an absolute increase, it might be deserving of more notice; but in proportion as the manure of a farm is applied to the crop of potatoes,

it must be lessened in its application to the part appropriated to corn. See Appendix, XLVI.

Whatever may be the effect of the extended culture of potatoes, the easy circumstances in which the greater portion of the inhabitants of Great Britain are placed must make the increase of their numbers to be at a higher rate than that of the class who are fed chiefly on potatoes; besides, the lowest classes are rising a step in the scale of subsistence, with a degree of gradual regularity, much more than those above them are descending. The middle classes are receiving recruits from the lower in much greater numbers than the latter do from the former. This state of things is clearly proved by the vast number of neat houses of the smaller class arising in every part of England, in exchange for the crowded and filthy dwellings formerly inhabited by the artisans, which are as rapidly, in every county, disappearing. This view is also further strengthened by referring to the great increase in the consumption of all those articles which form the com forts of those a few steps above the indigent class. Thus, within the last twelve years, the increased use of soap, candles, leather, sugar, and other articles, is evidence to show that the augmentation of our inhabitants has been chiefly in that class of society who are not compelled to subsist on the lowest description of food.

It may further be added, that the increase in the amount of the capitals accumulated in the several Savings' Banks, in a few years, from two to fourteen millions sterling, affords other ground for taking a favourable view of the condition of those one or two steps removed above the condition of mere day-labourers, and who live on better food than potatoes.

The year which followed the banking crisis of 1825, may, and probably did, impede the progress of national

See Appendix, XLVI. prosperity, and such a rapid increase in the consumption of wheat, as would without it have been attained. The effect of that crisis is now nearly passed away; and as we hope to return to the pace of advance, at which that event impeded our course, we must look henceforth to a constantly increasing demand for wheat.

It will be presently shown, that if a great portion of our necessary supply should be wanted from foreign countries, there is no probability that it could be furnished without such an advance of price as would be enormously heavy.* We must look to our own supply, if not quite exclusively, at least chiefly. It is on the assiduity, and skill, and economy in cultivation of our own agricultural fellow-subjects that we must depend; for all other dependence would fail us in the day of necessity, whenever that day shall arrive.

It can only be by due and real protection that the British farmer can be enabled to supply the wants of the community; and, if for want of such protection, he should fail considerably in his annual produce, the void cannot be filled up except at a cost very far beyond what such protection, expended on the domestic cultivators, would amount to.

In order to show how difficult it would be to draw from the Continent of Europe a supply of corn, to such an extent as would make up the deficiency created by another harvest like that of 1816, it becomes desirable to show what has been the actual surplus of wheat of those countries after feeding their own inhabitants.

See Appendix, XLV. The greatest exporting country is Prussia. As the wheat of her Rhenish provinces finds its only outlet through the ports of the Netherlands, and the whole is consumed there, it is not necessary that it should be taken

* See Note D at the end.

any notice of in the review of general exports. I believe none from Munster finds its way to the Weser or to the Ems, though to the latter river there is a canal; but the navigation of it is so expensive, as to be a bar to the conveyance of grain. Much wheat comes from Magdeburg, and the adjacent provinces near the Elbe. The quantity, whatever it may be, is shipped at Hamburg, and forms a part of the excess of export beyond import of that city. We have then only the provinces of Pomerania, and of East and West Prussia to notice in this general view. See Appendix, XLV.

In the nine years, from 1819 to 1827, both inclusive, the whole export amounted to 1,971,577 quarters, at the average rate of 219,064 annually. This amount comprehends the whole of that which descends by the several rivers from Poland. As the Prussian wheat is not of the best quality, and forms about one-third of the whole quantity, that from Poland may be annually about 140 or 150,000 quarters; some of this is however inferior to the average wheat of this kingdom. There may perhaps be 100,000 quarters produced yearly of a quality superior to that of our own growth, and which, after a moist harvest in this kingdom, will sell at 10*s.* per quarter above our average.

The export from the Duchies of Mecklenburg, in the twelve years from 1816 to 1827, both inclusive, amounted to 447,062 quarters, or an average export of 66,456 quarters. See Appendix, XI. and XII.

The exports of Denmark, including Holstein and Sleswick, in the seven years from 1820 to 1827, both inclusive, amounted to 730,571 quarters, or annually to 104,768 quarters. See Appendix, XV.

Hamburg is to be viewed chiefly as a depôt, though it is the channel by which the wheat, grown near the Elbe, See Appendix, XXV.

is transported to other countries. In the ten years from 1818 to 1827, the whole amount of the export was 675,774, of which had been imported 434,192 quarters, thus showing that the surplus of the district of which it is the natural outlet, has been in ten years at the rate of 43,419 quarters yearly.

See Appendix, VIII. & IX.

The exports from Bremen, according to the only accurate accounts I could procure, amounted annually to 1,850 quarters. The whole annual rate of exportation of wheat from those countries, may be thus brought together:—

	Quarters.
Prussia	219,064
Mecklenburg	66,456
Denmark	104,768
Hamburg	43,419
Bremen	1,850
	435,357

The exports of this small annual quantity, added to the rapidly increasing internal consumption, has reduced the stocks of wheat through the north of Europe to the very low state which has been already exhibited in this Report. The amount of that stock, with the exports from all the countries which produce a surplus of wheat, would not, if the whole had been sent to this island in one year, have been sufficient to fill up the space left vacant by the deficient harvest of 1816. In every place which I visited I endeavoured to ascertain the quantity of corn which remained on hand of preceding years, at the commencement of the harvest of 1827. In those parts which I did not visit I attempted, by addressing letters to persons on whose accuracy I could rely, to learn the quantity at least of wheat in store.

I had no means, on which dependence could be placed, of learning any thing respecting the Russian empire; but if a judgment can be formed from the decree issued last year, which prohibited the exportation of corn, there can be very little in that country.

By a communication from Mr. Consul Gibson, of Dantzic, dated the 3d of January 1828, the stock in East and West Prussia was as follows:—

		Quarters.
Dantzic		230,600
Elbing		48,000
Koningberg		167,000
Memel		3,000
Pomerania, as by a confidential return:		
Stettin	1,200	
Colberg, Stolpe, and Greifswald	1,630	
Stralsund	2,370	
		5,200
Rostock		25,000
Wismar		10,000
Lubeck		24,000
Kiel		5,500
Tonning		9,000
Hamburg		25,000
Bremen		22,000
Copenhagen and Corsoer		4,800
		578,700

Mr. Canning's remarks show, that the wheat at Kiel and at Tonning had been shipped for Holland and Hamburg between the time of my being in Holstein and the date of his information. When I was at Lubeck, some portion of the wheat there was then actually shipping off for the French ports in the Mediterranean. The wheat stored at Bremen is of so inferior a quality as to be unfit for our markets, except in cases of great urgency.

In some of the places, the quantities reported to me

when I was there were less than are here stated. In every instance, where the reports of the Vice Consuls, through Mr. Canning, give a larger stock than my own, those reports are adopted.

I understand, that of the wheat stored in East and West Prussia, one-third, or about 120,000 quarters, are of a very inferior kind; the same is the case with the whole of that at Copenhagen and Corsoer. Of the 30,000 quarters stored in Rostock and Wismar, though none of the best quality, yet all would be marketable here, at from 5*s*. to 8*s*. below our general average price. Some of it had been shipped for Holland, and was actually unloading in the ports of that country when I was there on my return from the north.

In a report made to your Lordships, drawn up two years ago, I had estimated the wheat actually in store, disposable for foreign countries, to be,

	Quarters.
	741,473
Unfit for England	185,140
Fit for England	556,333

At that time there were under bond in our custom-houses 251,446 quarters (*see* Appendix, XXIX.), making the provision for the following year amount to 807,776 quarters.

At present I estimate the whole quantity 578,700, deducting one-third of unmarketable quality for Prussia, making the allowance of one-half the stock at Bremen for the same reason, and the whole of the stores in Denmark Proper, with one-third of that in Mecklenburg, which has been shipped for France and Holland. I have lately received an account from Dantzic, that 17,000 quarters had been since shipped from thence for

France. The quantity to be deducted from the store of 578,700 quarters will be, for

Kiel	5,500
Tonning	9,000
Prussia	150,000
Bremen	11,000
Denmark Proper	4,800
Mecklenburg and Lubeck	19,000
Dantzic	19,000
	217,300

This leaves, as a provision for future export to this kingdom, if it shall be needed, 361,700 quarters. The quantity in bond in Great Britain now is 176,281 quarters, whereas in 1825 there were 251,446 quarters.

As in some places of the south of Europe, wheat is higher than in England, and in many so near to the English price, as to be a preferable market, if only a few shillings duty be imposed here, hence there is little prospect of any supply being sent to this country.

In this calculation of the actual quantity of wheat in store in the different countries of Europe, I have not noticed the kingdom of the Netherlands. When I was there, on my way to the north, I was satisfied, as well by the assurances of Mr. Melville, His Majesty's Consul at Amsterdam, as by other channels of inquiry, of the fact, that, on the average of years, the corn grown in that united kingdom was insufficient for its own consumption, and that at that time no stock remained in the granaries, On my return, I found vessels discharging cargoes of wheat from the ports in the Baltic, with none on hand, and none expected to arrive by the Rhine from the interior of Germany. The supply of the inhabitants depended on the recent harvest, and on the imports from Hamburg, Bremen, and the Baltic ports. When at

Limburg, in the vicinity of which city the best wheat is grown, and at Coblentz, where it is placed in river craft to be conveyed to Holland, in common times, I found none was dispatched, or likely to be dispatched in that direction. A failure of the recent harvest in the eastern departments of France had raised the price of corn in that country, and in the adjoining states of Germany, to a higher rate than it would have been sold for in the cities of Amsterdam, Rotterdam, and Antwerp. It could not withstand in those markets, at that time, the competition with the price at which the corn from the north could be imported. It had too ready a market near at hand, on the borders of France, where it was foreseen, as has since taken place, that the deficiency must soon, by the operation of the law, cause the departments near to Germany to open their markets for the reception of foreign corn.

The anticipated demand for France had produced an effect on bread corn generally, but much more powerfully on rye than on wheat, because the former is used by a much greater portion of the inhabitants; its price had risen to an equality with that of the latter grain.

I proposed a question in every place I visited, and, since my return, to many individuals in England, Scotland, and Ireland; and the answer in almost every instance, was "that at no period" (within the memory of the persons answering) "was the stock of corn, in the hands of growers and dealers, so low as at the recent harvest." If I have been misinformed on this subject, it has not been from deficiency of inquiries, or from want of due examination of the facts. I am induced to give the more credit to this view, from having been assured by the largest factors and mealmen in the metropolis and its vicinity, where, from the difference in price between good

and bad corn being greater than elsewhere, the best most readily finds its way; that at no period were so few samples of old wheat exhibited at Mark-lane, as since the harvest of 1827, although, from the damp state of much of the wheat, the price for the little old corn that has appeared, has been out of all proportion to the new.

It has been remarked, that after the harvests of 1813 and 1820, for some years, in the months of November and December, nearly as much wheat of the growth of those years was brought to Mark-lane, as of that grown in the harvest immediately preceding.

Although rye can scarcely be considered as bread corn in England, yet the small portions in store in the different parts of Europe, are a striking indication of the more rapid increase in consumption than in product, where the bread is chiefly made from that grain.

STOCK OF RYE.

	Quarters.
Dantzic	9,000
Elbing	6,000
Koningsburg	35,000
Memel	1,650
Stettin	120
Denmark Proper	8,500
Tonning	1,500
Kiel	—
Hamburg	5,800
Lubeck	3,600
Bremen	12,000
Rostock	7,000
Wismar	—
	90,170

In the accounts collected of the stores of bread corn, I have included what is required for the consumption of the places in which it is stored. As those cities contain together more than 500,000 inhabitants, besides their sur-

rounding villages, and as the chief corn required for bread is rye, the stock of that grain is scarcely sufficient to supply the demand for a single month. Hence is to be seen, that in many places, the price of rye has increased, whilst that of wheat has remained nearly stationary. In some places the price of rye was equal to that of wheat, and in others was far from being so much lower as the returns of former years exhibit.

If due examination had preceded the enactment, it is scarcely conceivable, that the change which has been operated in the principle of the laws relating to Corn in almost every state in Europe, would have been effected.

Formerly, England, as well as other states, enacted prohibitory laws against the exportation of corn. This was done under an opinion, that the annual produce did not exceed, or that it barely amounted to, as much as was annually required for food. This opinion of a constant approach to want, even led in France, and some other countries, to laws which prohibited the transport of corn from one province to another in the same kingdom.

In this country, corn was generally forbidden to be exported, even to Scotland commonly, till 13th Elizabeth, when it was allowed, on payment of 1*s*. per quarter duty on wheat. By the 35th Elizabeth, the duty was raised to 2*s*., and the export price was fixed at 20*s*. a quarter. The duty of 2*s*. was continued, and the price at which exportation was allowable, raised by 1st James I. to 26/8; by 21st James II. to 32/; by Cromwell's ordinance, in 1656, to 40/, with a duty of 1/1; by the 15th Charles II. to 48/, with a duty of 5/4.

In this state, the corn export trade of England was regulated until the change in the 1st year of William and Mary was made; which allowed exportation when wheat was under 48/ the quarter; and instead of imposing a

duty, as had before been practised, established a bounty of 5/ per quarter.

Between that time and the year 1815, seventy-three laws were passed, so various in character, that they seem all to have been grounded on some temporary expediency, rather than on any general principle of the relation which existed between the demand and the supply. The law of 1815 was founded on the principle most directly opposed to that of the former laws. All of them had rested on the opinion, that corn was commonly deficient in every country; and that of 1815 on the opinion, that it was everywhere superabundant. Both opinions were founded on very contracted views of the subject, with slight, if any examination; and both concluded in placing restrictions on the freedom of intercourse between nations, which were adopted into the commercial codes of most of the European states.

On the causes which have led to the depressed prices of corn during a succession of the last years.

It must appear clear from the preceding parts of this Report, and the Appendix to it, that during a long period the prices of the corn of the continent, which have been sold, have not been sufficiently high to remunerate the growers of it. The distress and complaints so universal among our own agriculturists, tend to show, that notwithstanding, to favour and protect them, restrictive laws have been framed, which, with slight exceptions under pressing circumstances, have given them a monopoly of the home market, the selling prices of grain have not been sufficiently high to cover the expenses of raising it, and to afford a moderate profit on which to subsist.

It has been shown, that the stock of grain in store is much lower than at a period when a statement of its amount was framed, two years before; and that same statement showed so small a provision, that the credence it ultimately obtained was yielded to it slowly, and seldom

On the causes which have led to the depressed prices of corn during a succession of the last years.

without hesitation. It appears desirable to reconcile two appearances, seemingly in opposition to each other; viz. that the quantity of corn in hand was not excessive, and that the price, notwithstanding, continued below that at which it could be grown.

Without entering into any abstract reasoning on the effect of the relation which supply bears to demand, in the regulation of prices, it may be sufficient to observe, that those relations, though they may regulate prices in a long series of years, and over a very extended surface, yet that opinion, whether rightly or erroneously formed, exercises a much more powerful influence for a time, and that the term of the existence of such influence of opinion, can be determined by no abstract reasoning, and even to experienced practical men appears altogether undefinable.

The statesman who has legislated, the merchant who has speculated, the exchange-banker who has negociated, and the stock dealer who has jobbed on abstract principles, overlooking the influence of opinion, has generally been observed to have failed in obtaining the object of his pursuit. Such a man resembles the mathematician, who, having attained the highest acquirements in the pure sciences, and becoming capable of calculating accurately the force of the mechanical powers, should construct the simplest machine, without making any allowance for the effect of friction. Without duly allowing for that effect the machine would not perform its destined purpose. It is equally dangerous to overlook or miscalculate the effect of opinion in transacting the affairs of public bodies or private individuals.

For a period of several years duration, an opinion was propagated and extensively imbibed, though in opposition to the almost demonstrated doctrines of Malthus, that in

every part of Europe the production of the means of subsistence was proceeding with a rapidity far greater than the increase of the population. It was asserted, by what many deemed very high authority, that all the world had carried cultivation too far; that food of every kind was too abundant, and that the inferior arable lands should be sent back to their former unproductive condition. Such statements, confidently asserted, scarcely denied, but never investigated, obtained a degree of credence as extensive as the influence of high names and high pretensions could spread them.

On the causes which have led to the depressed prices of corn during a succession of the last years.

In the year 1825, I found, in all the corn countries in the north-east of Europe, this view of the matter to prevail universally among the growers of and dealers in corn; and it would have been like combating the winds to have contended against the prevalent belief. Every grower of corn, whether on a large or a small scale, affirmed that there was on hand sufficient for several years consumption. I saw that their barns and granaries on many of the farms were empty, or very nearly so; and the owners, still convinced of the truth of the general opinion, assured me, that though the necessary calls for money had compelled then to sell at however low a price they could obtain, I should find, on proceeding farther, such vast abundance in store, as would convince me they were right in their representations. I did proceed; I found no stocks any where, but every where I found the assurance, that farther on I should encounter a superabundant quantity. The farther I advanced from the sea-shore, the more scanty did I find the provision of bread corn, but especially of rye, which is the chief food of the country I then visited.

At that time the continental presses issued forth numerous publications pointing out remedies, which they

On the causes which have led to the depressed prices of corn during a succession of the last years.

called on their respective governments to adopt to cure this evil of abundance. I collected a great number of such publications of various extent, and containing a great diversity of projects to cure the assumed evils. Most of them recommended that the corn should be stored under the care of the government; that the owners should receive acknowledgments, stating the quantity and value of the corn so deposited, which notes of acknowledgment were to be received for taxes, and to be made legal tenders for all payments. Others of them drew plans of buildings, and calculated the cost of them, of such enormous dimensions, as would contain all the surplus corn of the districts. Some suggested, that caves should be dug in sand-hills, to receive this enormous surplus; others recommended, that all the sugar hogsheads should be collected, filled with corn, piled one upon another, as high as could be managed, and then be securely thatched. Such were some of the projects then seriously and soberly proposed, and at a time when the barns and granaries in the interior were nearly empty, and the stores at the sea-ports, to which all had been sent, were lower than usual.

Two years have, however, dissipated these projects, and the illusions to which they owed their birth. The harvests of 1826 and 1827 were slightly, if at all deficient in wheat, and rye was not below the fair average, whilst barley and oats only were below that average; yet no man spoke of any surplus, nor thought of that accumulation, which two years before they had represented as equal to the consumption of many years.

I have had opportunities recently of seeing the persons who gave me such descriptions as I have noticed, and of conversing with some of the authors whose publications I have adverted to: they felt the error of their represen-

tations; but those who had partaken of the same error, were too numerous for any one to feel ashamed of having been betrayed into it.

On the causes which have led to the depressed prices of corn during a succession of the last years.

It was not unnatural, and was not perhaps unfair, to retort on an Englishman, by referring to the proceedings of his own legislature. It was often said, the governments of the two most enlightened countries of Europe, of England and France, legislated upon the principle, that either in their own or other countries, the cultivation of the soil had been carried too far; all the restrictions enacted in those kingdoms, had been founded on that belief: on the idea that production had far exceeded consumption. When no public meetings for discussing such topics are allowed, where none of the temporary productions of the press indulge in the investigation of them, the views of the public must be formed by the proceedings which take place in the legislative assemblies of other countries. The debates and discussions which take place in them, on such subjects, are translated and circulated with freedom, even in the parts of the continent, where every other kind of examination is sedulously kept out of view by the governing powers.

If statesmen in England and in France (it was said) of popular fame, and of commanding eloquence, have asserted, and if their assertions have passed uncontradicted, that the productions of the land had increased beyond the consumption of the inhabitants; that for the sake of affording protection to the home growers, prohibitions or restrictions were demanded on the commodities of foreign countries; and if laws on those grounds were subsequently enacted, it was natural that such views, which could not be supposed to have been taken without due examination and diligent investigation, should be adopted by us, from the confidence we felt in

On the causes which have led to the depressed prices of corn during a succession of the last years.

the persons who had presented them to the public. Such is the kind of defence offered on the continent, for the involuntary but acknowledged error into which they had universally fallen.

It is, however, of much more importance to trace the consequences of this widely extended error, than to ascertain the causes which have led to its general reception.

The prevalent opinion on the subject of excessive production, naturally influenced the conduct of those persons whose capital and attention had been directed to the speculative trade in corn. There is, perhaps, no part of the capital, or of the attention of a country, employed more profitably for the community, than that which is devoted to speculation. Speculation may be attended with evils, like every other course of pursuits. Individuals may be, and often will be, unsuccessful in their operations, and involve themselves and their connexions in great distress; but the losses of such parties will commonly be balanced, as far as the community is concerned, by the gains of others; or if some part should be lost which no one gains, it will be too inconsiderable to affect the general welfare.

One great tendency of speculation in corn, is to equalize prices, to keep them at nearly the same rate, in spite of the vicissitudes of climate in different years. When abundant harvests have been produced by propitious seasons, and a quantity of corn is raised beyond the immediate want of a community, the experienced capitalist comes to the markets, and lays in a store, which, in the occurrence of a short time, he knows or thinks must repay him a profit on the advances he has made. The grower is thus encouraged in his pursuits, and induced to continue his exertions.

When the minds of many individuals are directed to

the same pursuit, and quickened by self-interest, a degree of knowledge of the relation which supply bears to demand, either immediate or remote, is gained, and diffused abroad; and the whole community becomes acquainted with its deficiency or its superabundance. If the former is known to exist, a spirit of parsimony is communicated, and much is saved, which, while it inflicts little or no suffering for the moment, lessens that suffering which might otherwise become intense at a later period. Such operations tend to spread the effect of scanty harvests over a long space of time. They act as the prudent commander of a ship does in the circle under his care, who puts his crew early on shortened allowance, to prevent absolute starvation, when he fears his whole store may be consumed by a protracted voyage, before it can terminate at the customary rate of consumption. If abundance is known to have been produced, the knowledge of it gives an impulse towards a more generous use of the articles which are yielded; each can afford to consume more, and each does in fact consume somewhat more; and thus the producer in some measure partakes of the pecuniary advantage of abundance.

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It is knowledge of this economical kind, and the general diffusion of it, which marks the different stages of advancement in the progress of society. In its ruder state, each individual knows his own wants, and his own powers of gratifying them; but has no means of viewing the general wants and supplies in such masses as to be duly affected by their relation to each other. When abundance occurs, he consumes or wastes, from not knowing that his surplus is wanted in other divisions of the state; when scarcity follows, he often endures privations and sufferings, from not knowing that supplies exist in other quarters.

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The speculator in corn may have no views but those of his own individual gain; he may be guided by even the most selfish and grovelling motives, but he is no less a benefactor to the community than the most patient investigator into the operations of nature in the human frame, than the most persevering mechanic who invents a new machine, or than the enterprising merchant, who, by his application and industry, introduces a new and profitable branch of commerce. Like them, he may be actuated solely by his personal desires, but, like them, he becomes the instrument of communicating extensive benefits to the society of which he forms a useful part.

The advantages arising from the equalizing of prices, and the diffusion of the economical knowledge here referred to, are purchased by the community at a very cheap rate. The limits between surplus and deficiency, in a commodity like corn, are not far asunder. A small surplus creates a great depression; a small deficiency, on the other hand, creates a great advance in prices. The capital required to adjust prices in the due proportion between those limits, is not large in proportion to the capital of the whole community, and the profit made of it, when the gains of one class of speculators are opposed to the losses of another class, is the only tax, and but a small tax, on the general mass of national wealth. It may not unaptly be likened to the oil applied to a machine, which, by lubricating its parts, prevents a degree of friction, to repair which would require a greater expenditure than the cost of the oil.

It is not contended that speculation cannot be carried too far, that it may not be exercised in such a manner, and to such a degree, as to produce much individual misery; but the correction of such misconduct becomes rather the department of the moral instructor than the

study of the political economist, or the business of the political ruler.

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Speculation is foresight; looking forward to distant periods, computing the probability or the improbability of certain events occurring, and shaping the conduct upon such computations.

It directs the husbandman to sow his seed, the mechanic to construct his machine, the manufacturer to prepare his goods, the housekeeper to lay in, during summer, his fuel for a severe winter, and the father to provide subsistence for his offspring. Each of these may be disappointed in the probabilities upon reliance on which they had acted; the field might yield no increase; the machine might be rendered useless by a change of fashions; the goods find no customers; a winter may be so mild as to require the need of little firing; and the family might become extinct; and the wealth of the solitary accumulator be left to enrich strangers or enemies. Such failures of probabilities are no injury to the public, nor, however far the art of over-governing has been stretched out in some countries, has it ever been extended to interfere with them, or with the calculators of them. There are, it is true, countries where the governing powers have enacted compulsory measures of precaution against probable casualties, have forced their subjects to insure against fire, against injury by hail-storms, and against the death of cattle, whilst they have more wisely left to individual judgment to calculate on other matters, as uncertain as the visitation of those calamities.

The moral teacher may well occupy his attention by defining the limits which separate the speculator from the gamester; by showing the benefits derived from one by the community, whilst the other is at best but a use-

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less member of society: he may show the moral effects of sobriety, industry, and acuteness, created by the pursuits of one, and the recklessness, profusion, and not unfrequently miserable termination of the other.

The speculation now under consideration does not look to these moral effects, however extensively they may be supposed to spread themselves, or however they may inspire aversion when viewed, as they usually are, in individual instances, and not in groups or masses, as they should be by the statesman and legislator. The speculation on which we look with most complacency as applicable to corn, is not that which is confined to buying when it is cheap, with the expectation of selling with a profit when it shall become dear, but to that practised by those classes, who are in any degree interested in the diffusion of that commodity in the several forms it takes before it is consumed, such as the corn-chandler, the farmer, the miller, the baker, the brewer, the distiller, and other traders.

These, in a certain degree, may be represented as speculators. Each of them, when corn falls below the price of production, has been accustomed to keep a larger stock, in anticipation of such a rise as shall produce them a profit, than he would have done when the price is very high, and a decline in it may reasonably be expected. It is to these classes we look as the most beneficial speculators. They regulate the market price by their operations; they have the greatest interest in forming correctly the opinions by which they are guided, and when losses occur, they are most commonly lessened by the amount of the profit they make in their character of regular tradesmen; or they are more than balanced by contemporaneous profits; and, at any rate, they inflict none of that painful feeling of self-reproach which

is followed by losses arising from unsuccessful transactions of a more hazardous, or, rather, of a more gambling description.

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This tendency of speculation to the beneficial adjustment of prices as between the producers and consumers, with due reference to the quantity of each kind of commodity demanded, and the quantity supplied, will always be more or less perfect, as more or fewer impediments exist to the free circulation of such commodities. For this purpose, the greater the freedom of trade is, the greater approach to accuracy will be attained in the adjustment of prices, and the more properly will the constantly opposing desires of producers and consumers be made to repose on that pure and simple justice, which is the parent of social concord, and the best foundation of national and individual prosperity.

It cannot be maintained, that no cases ever present themselves which will not justify restraints and limitations on the perfect freedom of circulation. Undoubtedly cases may and do exist, which may be sufficient to justify the legislative power in opposing restrictions to this freedom of commerce. These are exceptions, however, and not rules of conduct; and, like all other exceptions, are not to be constituted into rules, nor to be carried farther than a convincing case can be clearly made out to defend them.

The financial demands of the community may compel its governors to obstruct the freedom of commerce, by imposing taxes on the importation of foreign commodities, which, whilst they may appear to be levied on the subjects of other countries, are in reality drawn from the consumers of such commodities in their own territories.

The protection of infant projects, which, when brought

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to maturity, promise to become fruitful sources of national benefit, may render restrictions on foreign goods proper for a time; but should only be adopted in the highest degree of probability of their future and extensive benefit. Thus, our silk and linen manufactures, when only infant plants, had this kind of protection afforded to them, until now, under it, they have acquired such root and strength as scarcely to need it any longer, or to need it in a weaker degree.

Restrictions may be admitted to protect the inventors of useful discoveries, to confer on them those rewards for their labour to which they are entitled; and to stimulate others in the application of their mental powers to the advancement of the sciences, and the adoption of them to the practical improvement of the arts of life.

In the progress of society, interests have grown up, under the sanction of the laws, which might be injured by extraneous interference, and the injury to them might materially affect the general benefit. The preference to articles of the first necessity of domestic growth is natural, and almost universal. The chief articles of subsistence in each country are almost wholly of home produce; and in a country with a great density of population, may be only procured in sufficient quantity to supply the demand of the inhabitants, at a considerable cost. In such a case, a foreign interference, which would lower the home price so as to check interior production, might, in a few years, cause that domestic industry and application of capital which are the chief sources of supply, so far to decline, as to afford a less quantity, and thus elevate the price to the consumers higher than it would be raised by trusting to, and by duly fostering and protecting its home growth.

It is on this ground, and this alone, that the protec-

tion, as it is called, to agriculture will admit of defence. It is to protect the consumer against a price too high, which would take place, if a portion, by no means a large portion, of our supply depended on foreign growers of wheat, that any restriction on the trade in grain can be justified. If it cannot be grown with profit at home, the home supply will diminish to an extent that no foreign supply can replace, without a sacrifice of more money than would have insured a sufficiency from our own soil. It becomes, in this view, simply a question, whether it be better to yield some benefit to the home grower, at the expense of the consumer at first, rather than leave the latter to rely for such a portion of his supply from foreign countries as must reach him at ultimately higher prices, whenever a slight diminution in the fruitfulness of a season may compel him to require a demand a little beyond what he usually wants.

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If the producers are to be protected, it should be chiefly with a view to the protection of the consumers. They form the far larger part of the community in this country, and theirs is the paramount interest in society.

It has been estimated, that if our own growth of wheat were so reduced as to compel us to depend on foreign countries for a constant supply of one-eighth part of our consumption, such a quantity would be furnished, if it could be furnished at all, which is very doubtful, at a greater expense than any sum which it would have cost in protecting our own growers, so as to encourage them to raise enough to make it unnecessary.

It is upon such grounds as these,—for it is impossible to attribute it to lower and more selfish considerations,—that our legislators have, at various periods, unanimously determined on granting protection to our own cultivators; and that the differences of opinion that have arisen

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among them has only been as to the nature and the extent of that protection.

There may be some few other cases in which a just and wise government may be induced to place restrictions and prohibitions on the interchange of commodities; but as far as they do so, they will do it with suspicion of its effect, and with careful attention not to extend them farther than is absolutely necessary to attain the object in behalf of which they are imposed.

It might have been incorrect not to have noticed the exceptions to the general adoption of the utmost freedom of commerce as rules of conduct; and if, in having done so, I have digressed too widely, I must trust to your Lordships' indulgence to pardon me.

Supposing the value of the kind of speculation here described to be very great in adjusting prices between producers and consumers, and in equalizing prices between seasons of scarcity and seasons of abundance, it may be proper to consider the effect in diminishing, if not in annihilating, speculation, which has been operated by the erroneous idea that production was proceeding with a more rapid pace than consumption, and, by the laws which have been enacted in England, in France, Spain, Portugal, or Sweden, and elsewhere, to remedy the supposed inconvenience.

It is difficult to bring under any accurate statistical review the application of capital to specific objects. It is scarcely possible to ascertain the whole amount of capital employed in any one branch of commerce, in any kingdom, even in a branch not very extensive. The whole that can be accomplished, with whatever faithfulness and industry inquiries may be conducted, will merely attain an approximation to accuracy, which can only be perfectly satisfactory to such as have arrived at the same

results by their individual observation of what is passing around them.

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The investigation of this part of the subject appeared of too much importance to allow of any means being omitted by which information could be obtained. In every part of the Continent that I visited, where I came in contact with intelligent individuals, either in private or official stations, I proposed the following questions, either in writing or orally:—

1st.—Have the cultivators of late years kept by them so large a reserved quantity of corn as they were accustomed to do in former periods?

2d.—Has the trade of buying corn in cheap seasons, in order to sell it at advanced prices in dear seasons, been carried on so extensively of late years, as it was formerly?

3d.—Has the capital heretofore employed in such trade in corn, been of late diminished, by being applied to other branches of industry, or has it been dissipated by the losses arising from the low prices of corn?

4th.—Have those mealmen who buy corn to convert into flour, kept so large a provision beforehand as they were formerly accustomed to do?

5th.—Has the stock of flour, in the hands of bakers, been as great of late years, as it used to be formerly?

To these questions, the answers were as various as could be expected from the multifarious characters, pursuits, and knowledge of the individuals to whom they were proposed. As far as regards the first of these inquiries, I was assured that, owing to the very low prices, the farmers were compelled to carry to market much larger quantities than usual, to raise that sum of money without which they could not continue their operations; that their annual harvests had been disposed of at much ear-

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lier periods than usual; and that, with many, there was hardly a sufficient store left to subsist themselves and their families to the next harvest. The dealers in corn were said to have lost a large portion of the capitals by their trade, and hastened to employ what had been preserved by becoming jobbers in the funds of the several states that surrounded them.

The mealmen were said to have held themselves bare of stock, from the expectation of a still greater decline in price; whilst the bakers, from the same apprehension, had followed their example.

Without any annual surplus quantity, every market became glutted from needy sellers; and that glut gave rise to the projects, which have been already noticed, of building gigantic warehouses to preserve the corn.

As represented to me, every one seemed to act as if corn was like rain, descending spontaneously from the heavens, and requiring, like it, neither the expenditure nor labour of man; and each purchaser seemed as if waiting for its descent, when a supply might be obtained with no pecuniary sacrifice.

Since my return to England, I have circulated the same queries, as far as my connexions would enable me, in every part of the United Kingdom. I have received answers to them from some parts of England, from the most interesting parts of Scotland, and from several counties in Ireland. I had joined to these questions one to inquire into the state of the stock of corn left in the hands of cultivators, dealers, and mealmen, in the commencement of the harvest of the year 1827.

See Appendix, No. XL.

By some of the communications, which are copied in the Appendix, No. XL., it will appear that, except in Ireland, where the trade of a mealman differs from the same trade in England, the stocks have been much lower than

formerly, and the trade of buying corn by dealers contracted within a very narrow compass, if not become wholly extinct. It will appear, by the testimony before given, that in autumn, 1827, the reserved corn was reduced to a very minute quantity.

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As far as my inquiries have obtained answers at home, I have thus found good reason to form the conclusion, that the same influence of opinion which has prevailed on the Continent has produced effects equally deleterious on our own agricultural industry, and has been the means of plunging many active, intelligent, and careful farmers, as well as too many landed proprietors, into a state of great embarrassment and suffering.

See Appendix, No. XL.

From the more rapid spread of knowledge, to say nothing of its more easy acquisition, it was not to be expected that the errors on so important a subject should have continued so long as from 1819 to nearly the present time; but it should be recollected that the organs of all parties concurred in keeping up the delusion. Those who applied to the legislature, in 1815, for what they called protection; those who advocated their claims, and ultimately enacted them; and those who resisted unsuccessfully those claims; all agreed in affirming that our country and the Continent superabounded in corn, though none of them thought of instituting any inquiry into the accuracy of the statements which they implicitly adopted.

The extinction of speculation in corn, and the small stocks kept by the farmers, mealmen, bakers, distillers, brewers, corn-chandlers, and others, may be attributed mainly, if not solely, to the exaggerated representations which were sedulously propagated of the vast stocks accumulated on the Continent, ready to be poured into this country like a deluge, unless the law opposed the remedy of

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prohibition, or of restriction, against the threatened ruin.

The remedy that was demanded was applied; and those who made the demand, and were indulged with the remedy, have been since involved in greater distress than before their request was complied with. At no period was the loss of agricultural capital so great as in the years 1822 and 1823, when the restrictions and prohibitions of the law of 1815 were in full force, and had not been infringed by such partial infractions of it as were deemed necessary in 1825, 1826, and 1827.

It is but justice to allow, that all the parties who were engaged in the corn controversy of 1815 were equally deficient in the foresight which, if duly exercised, would have led them to expect the annihilation of all speculative trade in corn, as the probable consequence of the measure then under discussion. With all that characteristic acuteness that controversy usually produces, none was exercised to discover the fatal consequences of that extinction to the growers and dealers in corn, and to the proprietors of the soil, which followed in its train.

The immediate effect of that law was suspended by the calamitous harvest of 1816, which opened the ports to all foreign corn, without any restriction or any duty. The harvest of that year, at its commencement, promised well; but soon, a constant succession of westerly winds bringing heavy showers of rain, attended with much dampness and great heat, destroyed the hopes of the husbandman, impeded the securing the corn, caused much of it to sprout before it was even cut, and much more whilst standing in sheaves in the fields; and on the whole, so affected the produce of the year, as to make it alike deficient in quan-

tity and in nutritive power. The western clouds, which brought these successive showers, seem to have emptied themselves before they reached the east of Europe. The harvest in Poland and in Russia was abundant, and the season for housing it favourable; so that by exercising great parsimony, and by having a reserve of the former year's produce, arising from the exclusion from our markets, those countries were enabled to export a very large quantity, as soon as the state of the harvests in the west of Europe became known to them. Thus, from Riga, which had exported, in the year 1815, only 967 lasts of wheat, were shipped, in the two succeeding years, 11,383; from Dantzic, which, in 1815, had shipped 1479 lasts, were, in the next two years, exported 33,963 lasts. That which had passed from Poland, by Thorn, was, in 1815, only 36,793 quarters; and in the two next years was, in 1816, 172,724 quarters, in 1817, 258,307 quarters. The years 1816 and 1817 were the most calamitous for the dealers in corn, the mealmen and the bakers, that have ever been experienced; numerous failures took place, and those who were enabled to withstand the trial were so far crippled by the losses they had sustained, as to be incapable of keeping up their stocks to nearly the extent they had before usually held. Some part of this suffering may undoubtedly be attributed to the calamitous harvest, but it was aggravated and augmented by the state of the law, which created a most sudden and unprecedented fluctuation in the prices of grain, but especially of wheat. Thus wheat, which was in the month of June, 1816, at the price of 73*s.* 7*d.* per quarter, rose, in the month of December, to 104*s.* 2*d.* per quarter; and in the month of June, 1817, was at 114*s.* 11*d.*, but fell in September of the same year, to 74*s.* 1*d.* per quarter.*

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The law of 1815 had closed the usual channels. By

* See note E. at the end.

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being pent up, an accumulation of corn had been formed beyond calculation; and when, by the operation of the season on the law, the barrier was removed, the rush of the mass involved many of the dealers in ruin, and all in distress.

The effect of this damming up for a season strengthened the erroneous opinion of the extensive productive powers of the corn-exporting countries. The small regular annual excess of those countries would be almost unfelt by the several extensive countries which are occasionally deficient in their home growth; but when, by restrictions, that excess is compelled to remain, in a few spots, till a great mass is collected, and a sudden occasion liberates it; a terror is spread among the sober part of the dealers in corn, a panic ensues, and most mischievous consequences follow. It is like a small rivulet, whose regular course might be made conducive to the fertility of the fields near it, if equably distributed over them, but when, by being dammed up, it is collected to a vast body of water, and is suddenly discharged, it carries sweeping destruction to all that it encounters in its course.

To our cultivators this course is excessively pernicious. The dam can only be opened by an unpropitious year, by a season of deficiency, when the growers ought to be paid a price high in proportion to that deficiency; but the accumulation of years, from foreign countries, rushing in as soon as, or even before, their crops can be brought to market, creates a sudden depreciation, as it did in 1817, which inflicts on them the misery of a low price, combined with a diminished portion of produce. As the cost of production must depend on the profuse or scanty multiplication of the seed, and as the cultivator is fairly entitled to a remuneration for his capital and his labour, it

is certainly contrary to the rules of justice, that a system of law should be so constructed as to prevent him from obtaining equitable profits. This is, however, now done, whenever a very deficient harvest, such as shall open the ports to the mass of foreign corn accumulated by the existing prohibition, shall entitle the husbandman to a very high price, to indemnify him against loss, or at least to lessen the inevitable loss which such harvests always bring.

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It is this accumulation, not the supply which would regularly reach us, were no prohibition in existence, that depresses the agricultural interests; by the exaggerated representations of its amount, when we have abundant harvests, and by the too rapid influx, whenever the harvests here are deficient.

I cannot think that, in the years 1822 and 1823, wheat would have sunk so low as 38*s*. per quarter, if the ports had been opened to foreign grain, and the surplus of continental Europe had been sent to this country, each year as it arose. If it had been known to what extent we had imported, and what price it had cost to raise the great mass of domestic growth on which we most chiefly depend; when it had fallen below that price, capital would have been invested in it with reasonable assurance, that, at no distant period, the change of seasons would render it a beneficial speculation. If such capital was not to be found among the usual dealers in corn, it was sufficiently plentiful for the prospect of gain to have attracted it from other quarters. Some of the millions which have been squandered in mining speculations beyond the Atlantic, or in loans to ephemeral or embryo governments, might have been invested in corn, and a small portion of those sums would have prevented corn from falling much below a remunerating price for a continued series of several years.

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If each corn-merchant, mealman and baker, had kept beforehand a reserve stock, greater by only a few weeks consumption than he was accustomed to provide in seasons of high prices, and which the lower value would have enabled him to do with the same amount of capital, it is not probable that the years here referred to would have witnessed the depressed prices to which wheat then fell.

The prevailing opinions, that production was advancing at a more rapid pace than consumption, and that henceforth only greater depreciation was to be looked for,—opinions thus promulgated by high authority, and sanctioned by legislative enactments, forbade each prudent tradesman to hold a larger stock than the temporary calls of his regular trade made indispensable.

Those farmers, too, who were not harassed for money, who in past times, when prices were low, would have withheld their corn from the markets, hastened to sell, under the prevailing impression; and thus the wealthy and the prudent contributed equally with the distressed and the negligent, to create a glut which was universally disastrous.

If the prevailing opinion, of the growth of corn exceeding the consumption, should be in some measure changed, and more accurate views on the subject entertained, and the law, which was founded upon that opinion, should continue in force; if below a given price all foreign corn is to be prohibited, and beyond that price to be admitted free of duty, the speculative trade in grain can never become of sufficient extent to adjust the price equitably between the producer and the consumer. Every man will be apprehensive of the price passing the limit of prohibition before he can dispose of his stock, and then the quantity, whether pent up for a longer or a shorter time, would reach our ports in a mass, and dissipate the hopes of gain which the speculator had anticipated.

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The present state of the corn law has a tendency to excite internal discontent, and affords to mischievous people easy means of increasing it. The penning up of wheat in countries of small extent, soon creates a glut in such countries, although the quantity really accumulated there may be very minute, and such, as if distributed here, would produce no sensible decline in price.

A few thousand quarters of wheat, for instance, in Holstein, Mecklenburg, or Denmark, for which there was no foreign market, would reduce the price even below half the cost. Needy sellers must take what is offered, and reluctant buyers will offer a very low rate. A small sale fixes a price in such cases, and it is circulated with delight by the designing among the ignorant, with appeals of affected tenderness towards our poor, who are compelled to pay so much higher a price for the common necessaries of existence.

Estimates have been presented to the public, founded on the supposition, that twenty millions might be saved to the public annually by the importation of ten million quarters of corn, at forty shillings a quarter less than our English price, which sum has been represented to be extorted from the pockets of the community to gratify the luxury of the landed proprietors, and the greedy selfishness of the farmers. Though the authors of such estimates must have known, or must have been woefully ignorant if they did not know, that the demand of one-twentieth part of what they reckon upon could not be extracted from the whole continent, without raising the price there as high, or even higher, than the average price in England.

It is not wonderful that such representations should have created jealousies and dissensions between the agricultural and the manufacturing interests. It is rather

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more wonderful, and not a little to the credit of both interests, that they have not produced a still greater effect. It must be the obvious duty of any government to use its best endeavours to remove a stumbling-block which may stand in the way of internal contentment and tranquillity.

One threatened evil of great magnitude is to be anticipated from the circumstances in which we have been placed by the existing corn law. A season of scarcity may be looked for at some, perhaps no very distant period. It may extend, as it usually has done, to the countries which commonly export corn hither. In the occurrence of such seasons, formerly, there was always a reserve stock in store distributed amongst dealers, mealmen, bakers, and, in small quantities, among a variety of other traders. It is not too much to reckon, that the store in the hands of the three great trades, taken one with the other, amounted to one month of each of their sales.

To say nothing of the growers, who, from their more prosperous circumstances, formerly held a larger portion of their growth than they have lately done, there must have been constantly food for three months consumption in reserve against unpropitious harvests. At present, when the speculative trade in corn is nearly extinct, when the millers and bakers have on hand not more than half their former quantity, a harvest slightly deficient, coming on us with so short a reserve, would be felt with great severity.

The difference of the whole, or nearly the whole of the usual stock of the speculators, and half that of the mealmen and bakers, is a quantity far beyond what we could ever draw from all the world by the attraction of the highest prices that were ever offered, and at a time

when much corn had been pent up by the operation of the laws of England and France in the continental depôts.

At the present time, had the harvest of 1827 required it, it is doubtful if ten days' consumption of wheat could have been drawn from the whole continent, even at one hundred per cent. advance on the prices of that period.

On the probability of an increased production of corn in the countries on the continent of Europe.

THE prospect of a future increase of the production of corn on the parts of the continent from which it can be conveyed to this country, is a subject worthy of some examination. I hope to be pardoned by your Lordships, if, in the course of the investigation, I should be deemed to have travelled beyond the limits of the instructions communicated to me, by introducing or alluding to circumstances and facts, which, though well known, did not all present themselves during my last journey, but had been either ascertained before, or have been collected since my return.

This subject merits the more attentive examination, from the course which the discussions relating to any alteration in the Corn Laws have assumed, in the arguments of the two parties who have been most diametrically opposed to each other.

Those who have been most strenuously opposed to the introduction of all foreign corn, except in cases of extreme urgency, have assumed as the foundation of their reasonings, two positions; first, that the quantity of corn produced on the continent very far exceeded the consumption of its inhabitants; and, second, that there existed in those countries an almost unlimited power of extension, which would overwhelm this kingdom, and

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reduce the value of land and its products to some ruinous but undefined extent. From this view, we have seen resolutions laid before one House of Parliament, which were founded on the assumption of quantities of corn being introduced, which, in amount at least, are highly improbable, and which, if possible, can only be so when a scarcity, approaching to famine, shall have raised the price so high as to extend the circle from which it must be collected.

Those who have been led to the most opposite conclusion as the result of their discussion; who have contended for the most unlimited importation of foreign corn, have assumed the same opinions as the foundation of their argument; they have then deduced the conclusion, that such a quantity of foreign corn would be imported, if their schemes were to be adopted, as would, by lowering the price, be a yearly saving to the nation of as much, or nearly as much, as the whole interest on the funded debt amounts to.

When the facts stated by one opposing party are as easily applicable, or are deemed to be more applicable, to the result which the other wishes to arrive at, they will not be very readily denied, or seldom be examined with any scrupulous accuracy. To reason from the concessions of an opponent is considered fair in the dialectic art; and is a more easy labour to the initiated, than the slow business of examining the evidence on which the facts are grounded.

The facts assumed by one party, acquiesced in by the other, and promulgated and reasoned upon by both, have passed current, with little examination, from one description of persons to another, till, with few exceptions, they seem to have obtained too implicit credence from our legislators themselves.

The first of these assumptions, "that the quantity of corn produced on the continent very far exceeds the consumption of its inhabitants," is discussed in another part of this Report; and the examination of the second opinion, "that there exists in those countries an almost unlimited power of extension;" shall be now entered upon, with the unmixed and sole desire to ascertain the truth with as much accuracy as the nature of a future and contingent prospect will admit.

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In two of the districts which I have recently visited, I have been induced to think that, from their soil, their mode of cultivation, and their vicinity to the sea, Mecklenburg and Holstein can raise corn, but especially wheat, and convey it to this country at a less cost to themselves than it can be rendered by the cultivators in any other part of Europe. Their power is, however, chiefly derived from the very narrow extent of the land which is appropriated to the growth of wheat. On most of the best cultivated farms, that portion on which wheat is grown seldom exceeds one part in eleven; and on those conducted with the smaller capitals, and consequently on a lower scale of husbandry, the whole wheat land does not amount to one-thirtieth part of that which is under the plough. In any attempt to enlarge the extent of wheat land, they must make a change in their system. They must appropriate a greater proportion to corn and to fallow, and thereby diminish their stock of cattle, and their consequent supply of dung, or they must expend the strength of an increased number of horses on land, which without dung and (as they who are the best judges think) without fallow, will not yield an increase beyond the cost of the seed and the labour. Any great additional extent of wheat, therefore, would cause a great

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advance in the cost of their whole annual growth of that grain.

If the same portion of manure (about twelve loads to our acre) were applied to a larger extent of land, the additional quantity of wheat which such extent would produce would not cover the increased cost of labour and seed, and the effect of it would be felt in the diminished produce of each succeeding crop in the rotation. Every practical farmer is so well acquainted with this part of the subject, that I am almost ashamed to introduce it to your Lordships' notice. In a new country, like Canada, the Cape of Good Hope, or Australia, the more land is ploughed and sowed the greater will be the produce, but the case is far otherwise in old and densely peopled countries like Europe. Even in those countries, however fertile the soil may be originally, its nutritive qualities are very soon extracted by successive cropping with corn, and demand a renewal of the fertility by artificial and extraneous means.

The chief revenue, and the only profit drawn from estates in Holstein and Mecklenburg, of late years, have been from the sales of butter, cheese, and salted meat, in the first country; and from the same sources, with the addition of that derived from the fleeces of their sheep,* in the second. Such produce is easier and cheaper to store, costs less according to its value in money to remove to distant markets, and is less subject to fluctuation in price than the several kinds of grain. If then in each rotation of the ploughed land, the portion left in pasture were to be curtailed of one year, and a proportionate number of cows and sheep were, as they must be, also curtailed, the cultivator would be guilty of the folly of

* See Note F, at the end.

giving up a certain gain, for the sake of a possible and even probable loss.

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Although, in the countries under consideration, the greater part of the land is cultivated for account of the proprietors, and the most productive under their own immediate inspection, yet considerable estates are let to farmers, with sufficient capital to work them, and in small allotments, called *bauer hofs*, to lesser tenants. The leases are granted for one, two, or four rotations of crops, or for seven, fourteen, or twenty-eight years, or when the rotation is different, for corresponding terms. The tenants are strictly bound to a prescribed mode of cultivation, and to consume all the hay and straw on the land. It is in vain, therefore, to expect that, with this class of husbandmen, any such increased quantity of corn, and especially of wheat, as could affect foreign markets, will be raised. No landlord would entrust his land in the power of a tenant, who showed a disposition to deviate very widely from the long established practices of the district, unless that tendency was to grow less instead of more corn in each rotation.

As the proprietors in general understand cultivation quite as well as their tenants, they can and do enforce the observance of the restrictive covenants in their leases, and watch for any infraction of them with sedulous attention.

The land cultivated by the proprietors themselves, may certainly be brought to a different, and, perhaps, a more productive course of husbandry. I should doubt, however, if it would be ultimately more advantageous to them than the system they at present adopt. The gross produce might be more, and yet the net produce be less. It might bring a greater amount of revenue in sales, but a less in clear gain. It would require a greater outlay to

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commence the alteration, and as very few of the proprietors have much other capital than the land they occupy, and the stock upon it, they must, to change their system, raise money by mortgage, or other means, which can seldom be resorted to without considerable sacrifice. Those proprietors who are in more easy circumstances, are in general averse to any such changes as are attended with risk, and contend too earnestly for the superior excellence of their plans, to be disposed to change them for any very different. Such persons apply their skill and capital chiefly to the improvement of the races of their live stock, and to the accumulation of the largest possible quantity of manure.

One example of introducing foreign farming in the countries under consideration, has had the effect of deterring others from adopting it, and made them more than ever satisfied with their own.

A nobleman, Baron S——, who possessed a considerable estate, was anxious to improve it. He was a man of reading, reflection, and enterprise. Having heard and read much of the excellent farming in Scotland, and judging from the similarity of climate of its adaptation to his own property, he resolved on an experiment to introduce it. He passed some time in the Lothians and other parts of Scotland, attentively studied all the economical and practical habits of that country, and began the practice of them on his own estate. By the alternate growth of green crops, and corn crops, after commencing with a year's clean fallow, he calculated that he should be able to maintain a greater stock of cattle, and yet grow a greater quantity of corn.

Whilst the land was under fallow, and before the green crops were sufficient to support his stock, he was under the necessity of buying a large quantity of hay at

a high price to maintain them, as well in the summer as through a long northern winter. The next summer, as is more usual on the continent than in this island, was dry, and the turnips, on which great reliance was placed, nearly failed, and again, hay was to be bought. Clover, which was looked to for summer food, was uncertain in produce, and when a wet season was most favourable to its early growth, the crops of corn in which it was sown were so laid, as to destroy the plants, and disappoint the hopes of the produce of the next year. The climate was found to be too cold for winter tares, and summer tares yielded but a very small quantity of green food. Experiments were made by sowing peas, summer tares and oats together weekly, in patches of about three acres each, which extent was estimated to produce as much green food, in each week, as, when cut, would subsist 100 cows; but in some weeks the green food was insufficient, in others, if dry, it totally failed, and then hay must be purchased at whatever rate.

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Such and other unexpected disappointments followed for several years, till he became wearied out with continued calls for more capital, when he determined to let his land under the customary covenants, and to address his attention to other subjects. During the course of his cultivation, the gross produce of the land had been considerably augmented; but the additional cost of that increase had far exceeded its ultimate value.

Another circumstance, which must tend to check any very great extension of the growth of the cereales, is the greater uncertainty of their produce, than that of pasture land, chiefly owing to the severity and vicissitudes of the climate.

I was informed by a very intelligent friend, who has kept an accurate register of the state of his crops for

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many years, and who gave me a written memorandum, after much and interesting conversation, on this particular branch of the general subject of his agricultural experience. Wheat (he states) produced eighteen bushels an acre on the average; out of 38 crops, six had been nearly destroyed by frost and wet cold; five by mildew, by a bad flowering season, or by bad harvest weather; six were very fine crops, eight good crops, nine middling crops, and four very poor crops.

The best field in the best year yielded 49 bushels to the acre; the worst field in the worst year, 10½ bushels to the acre. Oats (he says) in 15 crops, seven were good, two most excellent, three middling, three very bad; when sown with three bushels an acre, they yielded on the average of the years, 15 bushels; when sowed with six bushels, 26. The best field in the best year, gave 70 bushels per acre, from six bushels of seed; and the worst in the worst year, 18 bushels from the same quantity.

The gentleman to whom I am indebted for the foregoing statement, Baron Voght, of Flotbeck, in Holstein, to whom I owe the acquaintance of several of the most intelligent, hospitable, and estimable men in his country, is as well known in his own neighbourhood for practical skill, displayed on that portion of his estate which he cultivates himself, as he is at Vienna, Berlin, and Hamburg, for the enlightened and philanthropical plans he has introduced into those cities, for the management of the poor and of the prisons.

In answer to my questioning him, if the production of corn could be considerably increased by higher prices, he replied, "In my opinion it cannot; because the necessary food prevents the breaking up any of the five "parts devoted to pasture ground, because the farmers

'can by no possible means increase the dung, nor pro- "cure artificial dung, which, if they could get it, would "bring a loss with wheat at 28s. per quarter here."

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"The introduction of marling, which commenced "about thirty years ago, has increased the produce of "corn; but until another such improvement can be dis- "covered, or until those properties of 2000 acres are "divided into farms of from 200 to 400 acres, and stall "feeding or soiling introduced, and five times as much "capital employed on land as at the present time, no "considerable augmentation of produce can be expected."

The same opinion, but more strongly, is expressed in the very interesting letter of Mr. Iverson, of Schwensbye. —*See* Appendix, XX.

I have detailed more at length the views I have taken of the probability of augmented produce in Mecklenburg and Holstein, than I should have otherwise done, because those provinces are advanced in husbandry several stages before any other large portions of the east of Europe that I have visited. A kind of convertible husbandry, the best, I must presume, adapted to the soil and climate, has been introduced. The whole is inclosed, and divided into fields, of sizes appropriate to the extent of the farms, and thus present the most English face of any country I know. Very few vestiges of the feudal system remain. The land may be purchased by any person, whether noble, citizen, or peasant. It has on its coasts the most convenient ports for shipping its produce; and if, with all these circumstances in favour of the presumption that its produce of exportable corn will increase, the best judges think the reverse; we must either yield to their opinion, or seek to destroy the foundation which they have stated, as the ground on which that opinion is grounded.

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The far greater part of the continent of Europe is cultivated on a widely different plan.

The greater part of France, a still much greater portion of Germany, and nearly the whole of Prussia, Austria, Poland, and Russia, present a wretched uniformity of system. It is called the three-course husbandry, consisting of, 1st, one year's clean fallow; 2d, winter corn, chiefly rye, with a proportion of wheat commensurate to the manure that can be applied; 3d, summer corn, or barley and oats. There are occasional and small deviations from this system. In some few cases potatoes, in others pease are grown, in the fallow year; but they are only minute exceptions to the generally established system. It is not surprising, that, under such a system the produce should not be much more than four times the quantity of seed, at which rate it is calculated, as appears to me rightly, by Baron Alexander Humboldt.

The constant cropping with such exhausting a substance as corn, must in time deteriorate the best soils we are acquainted with. The process of exhaustion may go on more or less rapid, according as the soil is more or less fertile, or according to the proportion of those component particles, which are adapted to imbibe the greatest portion of oxygen, in the process of fallowing; but a gradual, at however slow a pace, progress must be making from bad to worse.

The fields are almost universally uninclosed, and exposed to the most injurious effects of a changeable and an intemperate climate. The ancient feudal system of tenure is still continued, modified, indeed, and softened in some few parts, but not to a degree or an extent that deserves to be taken into account in the view now under consideration of the countries as a whole. The peasants, for the most part, are *adstricti glebæ;* and where, by re-

cent laws, their condition has been changed, the practical effect has yet hardly had time to exhibit any observable improvement in their state. Labour, whether of men or of cattle, is usually exchanged for the occupancy of land, and hence the labour is performed in the most negligent and imperfect manner, that the vigilance of an overseer, who cannot be every where present, will allow.

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The lords of the soil, besides their demesnes, have the right of pasturage on the fields of their tenants, from harvest to the next seed time; hence none of those intervening crops which tend to enrich the soil, can be cultivated, without infringing on their rights.

Among the cultivators of the land, little or no accumulation of capital has been formed: from the lord, to the lowest grade of the peasantry, all are alike destitute of disposable funds. The lords are only rich in land, and sufficiently at their ease, if that land be unincumbered with mortgages or annuities. The peasants, whether owners of the live stock and of the implements, or having the use of them with the land from its owners, are content to live on, from year to year, eating their own produce, growing their own wool and flax, and converting them into garments. They are quite satisfied if they can dispose of as much surplus produce as will pay the small share of money-rent which becomes due to their lord.

Where an overwhelming majority of the inhabitants, amounting in some cases to nine out of ten, and in others to four out of five, of the whole population, are producers of agricultural commodities, the prices in money to be drawn from the small number of the purchasers of such commodities, must necessarily be too trifling to admit of much accumulation of capital.

The picture here given is by no means exaggerated, but will rather appear in colours too cheerful to those who have

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dwelt the longest on that part which comprehends the north and east of Germany, the kingdom of Poland, and the empire of Russia.

The present purpose is, however, to consider the probability of such an improvement as may make the countries in question not only sufficiently productive to afford abundance to its inhabitants, but to bring, to the general markets of richer and more advanced countries, such a quantity as can in any degree affect their prices.

It is hard to point out which should be the first step towards such an improvement as is here contemplated. Should it be by amending the soil, or by raising the condition of the cultivators? If it be assumed, that the first of these should be earliest undertaken, we may consider the obstacles that present themselves to oppose it. The land must be first divided into just allotments. The shares of the lords, and of the subjects or copyholders, must be adjusted according to some scale of the relative value of their respective rights. The adjustment of such a scale over a whole country, peopled by a race with no perfect view of the object for which it is undertaken, filled with jealous apprehensions of the infringement of their little property, and alive to every symptom which threatens its diminution, must create alarms, and such derangements of their internal tranquillity, as no government would voluntarily encounter.

That something like this was done in Prussia is not sufficient to induce other governments to undertake it. At the period when the change took place there, the people of all ranks were more alarmed with a dread of the continuance of the foreign tyranny, under which they groaned, than by apprehension from any measures emanating from their own paternal government. The greater fear completely swallowed up the less; and, as a means

of annoyance to their oppressors, it was an effective direction communicated to that fear. As a measure of self-defence it was adopted, and in that view was successful; but it cannot be stated without regret, that, though twenty years have passed since the change was promulgated, the improvement has not been so strongly marked as to allure any other of the great ruling powers of the continent to pursue with haste the same energetic steps.

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To return, however, to the immediate subject of our inquiry, let us suppose the popular reluctance to be overcome, the lords to have added to their demesne lands that share of what was granted to their tenants, to which they would be fairly entitled for their feudal services in lieu of rent, and for the right of pasture and their other prerogatives. Let each small subject, or tenant, or copyholder (for we have no one word in our language exactly synonymous with *unterthaner*) be further supposed, from a small tenant, to become a smaller freeholder, with land lying compact, but uninclosed. Without money, in many cases without cattle or implements, of what use can the land be to him? Until it is inclosed, a convertible system of husbandry cannot be adopted; for the cattle on his neighbour's lands could not be kept from feeding on his crops in the early stages of their growth. If he has no money to inclose his land, and none to purchase stock, he must of necessity dispose of it, as the only means of even a temporary subsistence; and when the trifle he could get for it, and in such circumstances it must necessarily be but a trifle, was expended, he must look out for day labour in a state of the country where no capital would be found to give employment to labourers. He must become a pauper in a country where no provision for the poor is known, except for such as are too old or too much diseased to work.

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The augmentation of the numbers of those who have no other property but the labour of their hands, however inseparable it may be from an advanced condition of society, where there is no sufficient capital to furnish them with employment, is a most tremendous evil in the stage of society in which no such capital has been previously collected.

If the lands were sold, its purchasers would not be found among those who were, like the settlers, already cultivators. The small property they possessed would all be too imperiously demanded for their own cultivation, to have any to spare for investment in land. The purchasers must then, of necessity, be the capitalists of the commercial towns, thinly scattered, and often very distant from the estates. The land must be let to tenants, who would have less interest in the permanent improvement of the soil than its former cultivators; and it seems highly probable that, in such hands, even the gross produce would become less than at present, whilst the net produce would be still more diminished.

The residences of the peasants are generally near together, in villages so distant from the extremities of the parish, as to make those extremities very expensive to cultivate. The barns and other buildings are near them; these are, upon a scale regulated by the nature of the climate, much more expensive to construct than is found to be necessary in our more equable country. At present, the lands, divided to each occupier in scattered fragments over the whole common fields, receive crops according to their vicinity to the village, and that part appropriated to wheat, and which is manured, is generally near to it. If those lands were parcelled out in separate farms, some allotments must be at a great distance from the village. The shares in such situations might be, and in justice

should be, comparatively larger. The expense of carrying manure, and of bringing the produce to them, would make the houses and erections in the villages nuisances and incumbrances on the land, rather than beneficial property. They must be destroyed, and new buildings constructed, before much of the land could be beneficially cultivated. The cost of the buildings on good estates, in the parts of the Continent we are considering, is generally estimated to be one-third the value of the whole property, or one-half the value of the mere soil. The taking down old buildings, and removing the materials to distant spots, and there constructing new, would bear the same, or very nearly the same proportion. To this expenditure must be added the cost of inclosing and putting up gates, and of making bye-roads to the several allotments. These expenses would probably amount to half as much as that of the houses, barns, stables, cow-stalls, sheep-houses, and cart-lodges. Thus an expenditure of three-fourths the value of the land must be provided for, before any part of the process of what is properly called cultivation can commence. Besides this, beneficial husbandry would require additional live stock to consume such part of the future produce as, to induce good crops, would require to be converted into dung.

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In the countries under review, the little surplus capital that has been accumulated belongs either to public or charitable institutions, such as corporate bodies, churches, hospitals, and schools, or to widows and orphan families, who subsist on the interest derived from them. The wants of the several governments on the continent, created by the eventful and distressing period of long and expensive wars, are found quite sufficient to absorb the whole of such capitals, and leave no part of great extent disposable for fertilizing the soil.

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The monied men in the commercial cities who have acquired wealth by operations on the exchanges, and by negotiating loans, though, to their subsequent regret, they have occasionally lent large sums on mortgages, are more feelingly alive to every symptom that even distantly threatens hostilities, than those who have been personally partakers of their actual inflictions, and know too well the difference between the interest produced by land and by funds, not to be wary in their modes of investment; and especially not to place capital in circumstances which shall make the removal of it to countries of greater security an affair of delay or difficulty.

If a view be taken of our own country, and directed back two centuries, when our condition in some respects resembled that of the existing state of the greater part of the continent, we shall observe how very slow was the progress made in the improvement of the soil, even during that long period of internal tranquillity which fills up the interval from the accession of the Tudors to the civil wars in the reign of Charles the First.

The pillage of the ecclesiastical bodies changed the holders of the land, but seems neither to have improved nor deteriorated the mode of cultivation, or to have affected its productiveness in any observable degree.

In the period that has followed since the Revolution, when greater security was given to property as well as to freedom, though the progress of improvement has been gradual, its pace has been far from rapid, and much remains yet to be done, before the whole land of this island will have attained half the fertility of which it is susceptible.

There seems no reason to imagine that the progress of improvement in the eastern division of Europe should be accelerated beyond the pace at which we have tra-

velled. There are obvious circumstances in their condition that would rather favour the expectation of a more slow than of a more rapid progress. Without, however, entering into that topic, we may venture to anticipate, that if their present unexampled rate of increase in population should continue, and if with it the indulgence in more generous kinds of sustenance be extended; when they shall have arrived at our present condition, they will have no more surplus raw produce to dispose of than we have at the present time.

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Another description of country must not be totally overlooked in this review of the probability of a future great increase of surplus corn.

Though not a large, a very productive part of Europe is in a state of high fertility, such as a great part of the kingdom of the Netherlands presents. Such lands, whether originally fertile, or brought into their actual state of fertility from the most sterile condition, by persevering labour through a succession of ages, are for the most part now cultivated by the manual industry of the people who inhabit them. These have increased, and are still increasing with great rapidity; so that, productive as their fields are when sown with corn, they do not yield quite sufficient grain for the consumption of the population. Whatever excess of produce is yielded, does not present itself in the form of corn; but assumes a shape more compendious, and on account of the proportion which its bulk bears to its value, far better adapted to the purpose of foreign consumption. Though the whole kingdom of the Netherlands exports much grain, it is merely a transit trade of speculation, in the course of which more is imported than exported. The produce of that rich country, as far as regards food, creates a surplus in the shape of butter, of cheese, and of cured flesh, like the countries

of Holstein and Mecklenburg. For these, a large field on which to operate is open, as not only can they be carried to Spain, Portugal, and the shores of the Mediterranean, but even to the East and the West Indies, with little expense of conveyance, and no hazard of injury by the voyage. The other parts of the produce of the land, which are the subjects of the foreign commerce of the kingdom, such as flax, rape and linseed, seed oils and Geneva, are more beneficial, and more regularly so, to the producers, than commodities so uncertain, both in their growth and their sale price, as the several kinds of grain.

Increase of inhabitants in Europe.

Although in every part of the continent which I have visited within the last nine or ten years, marks of improvement in cultivation, and of increase in production, may be traced, yet the progress cannot be easily or accurately defined. In some states, and in some districts of states, the pace at which cultivation has advanced is very striking; in others, and those the far larger portion, its pace has been languid, and in several is scarcely perceptible. The same observation may be extended to those objects which naturally mark an advancing state of prosperity: the houses, furniture, utensils, cattle, roads, fences, have all been in a state of improvement; but it is difficult to measure them by any determinate scale. Each observer will give them a colouring from his own temper or habit of mind, as it may be habitually or occasionally gloomy or cheerful. The practice of forming general views from too small a number of data, the commonest cause of erroneous opinions, will have an influence on every traveller, and that influence will often require the aid of subsequent observations, and some degree of resolution, to overcome the first hasty impressions.

With respect to the consumers of the productions of the soil, the case is at present materially different. It is a

subject susceptible of the greatest accuracy; and almost all the governments of Europe have of late taken steps, of different degrees of effectiveness, to ascertain the growth of the population of their respective dominions. A brief survey of that increase bears sufficiently on the general question of the proportion between the production of food and the consumers of it, to warrant the introduction of the topic into this Report.

Russia.

The accounts of the population of Russia, which are the most to be relied upon, comprehend only a part, though the greatest part, of the inhabitants of that extended empire. The Synod of the orthodox Greek church are in the practice of publishing each year the number of marriages, births, and deaths in the year preceding. The last of these lists, for the year 1826, has just come to my hands, and a comparison of it with those of a preceding period, not going back beyond the time when the empire had attained to its present extended limits, will give a view of the rate of increase that has been going on:—

Year.	Marriages.	Births.	Deaths.	Increase.
1820	317,805	1,570,399	917,680	652,719
1826	384,787	1.645,023	1,194,637	450,386

It is difficult to account for the lesser increase in 1826 than in 1820, unless it be attributed to the great difference in fertility between the respective years. The years 1819 and 1820 were highly productive in the east of Europe, that of 1825 rather less so, and that of 1826 was, in all the sandy districts, from the great drought which prevailed, very deficient.

To whatever cause the difference may be attributed between the two years, it may be fair to take the average of those years as the standard of annual increase. This will give us the excess of births over deaths, 551,552

Russia. souls. This comprehends only the increase in the greater religious sect over whom the Synod presides. When the whole population, in 1806, amounted to 41,252,000 persons, the excess of births over deaths, as published by the Synod, was 542,701. Since that year great additions have been made to the empire; but they have consisted of countries whose inhabitants did not profess the orthodox Greek religion, and are therefore not noticed in the annual reports of the Synod. Since that period, Finland, whose inhabitants are Lutherans; Bialystock, where they are either Catholics or heterodox Greeks; Caucasus provinces, where the majority are Mahomedans and Jews; and Poland, where they are mostly Catholics and Jews, have been added to the empire. The proportion which those of the dissident sects bear to the orthodox church has been commonly estimated as 2 to 7. At this rate, the annual increase of the population of Russia would appear to be at the rate of 697,758 persons. But as my design is merely to take a view of the increase of population in Europe, it is proper to exclude the inhabitants of the Asiatic provinces of Russia from this estimate. They are, to those in the European provinces, according to the most recent documents that I have been able to inspect, in the proportion of 2 to 11. Thus, from the annual increase of the whole empire, of 697,758 persons, must be subtracted two-elevenths, or 98,673; thus leaving for the yearly augmentation, by the excess of births over deaths in European Russia, 598,085. Taking this from the period of the general peace, in 1815, to the present time, at 600,000 for twelve years, being a few months short of the real time, we may, without fear of any material error, assume the population of European Russia to have increased about seven millions. I must here remark that, even in Russia, the increase seems to

depend less on the increased number of births than on the more extended length of human life. In the returns of the Synod, the deaths of persons above 100 years old appear to have been in the year

1806 . . .	293
1810 . . .	350
1816 . . .	689
1820 . . .	807
1826 . . .	1054

Prussia.

The most extraordinary instance of increase in population that is to be seen in any old settled country, or that has been actually recorded in past periods, is that exhibited in the dominions of the King of Prussia. It would hardly be credible, without such clear accounts as allow no room for hesitation, when emanating from a government whose systematic order, and whose accuracy in its statistical communications, are not equalled by any other in Europe.* By the official papers it appears, that in the ten years from 1817 to 1827, the increase amounted to 1,849,561, at which rate the inhabitants would double themselves in little more than thirty-six years.

See Appendix, No. XLI.

In the twelve years and a half which have passed since the conclusion of the peace, we may safely assume the increase to have been 2,300,000. The remarks of Mr. Hoffman, the chief of the Statistical Bureau in Berlin, show the manner in which the facts are collected, and the changes in the mode during the period under consideration. I am disposed to think the population has proceeded more rapidly than the means of employing and feeding it, notwithstanding the remark of Mr. Hoffman, "that the means of subsistence among the lower classes of the people have strikingly improved from year to year." This may be, and probably is, accurate as far as regards bread corn, by substituting wheat in the place of rye, or

See Appendix, No. XLII.

* See Note G. at the end.

by their using rye bread instead of potatoes;* but it does not seem to extend to a much larger consumption of animal food, or to the use of a greater number of horses in agriculture, or for other purposes. The account of those two kinds of live stock does not exhibit the same rate of increase as is shown in that of human beings. Thus, in ten years, whilst the increase of inhabitants, from 1817 to 1826, has been at the rate of twenty-five per cent., that of neat cattle of all kinds has been from 4,013,210 to 4,355,587, or at the rate of seven and a half per cent., during a period of the same duration, viz. from 1816 to 1825. In the same period the horses and colts have increased from 1,244,651 to 1,402,348, or at the rate of about twelve and a half per cent.

See Appendix, No. XLIII.

Sweden, Norway, and Denmark.

Population is certainly, at the present time, making more rapid advances in the northern kingdoms of Sweden, Denmark, and Norway, than at any former period. I have no precise data respecting the increase in Sweden, beyond a short account extracted from the *Révue Encyclopédique* for March 1825, which shows that the excess of births above deaths, in 1823, had been 42,205. I know that a general opinion is entertained, both in Sweden and Norway, that the increase is proceeding at too rapid a pace for either the employment that can be given, or the sustenance that is annually produced in those countries. The increase in Denmark Proper has been already noticed; and it may be incorrect to state the annual increase of those three countries at the same average. Whilst Denmark has increased at the rate of two per cent., Sweden and Norway may be estimated at two-thirds of that proportion. Assuming this estimate, the increase in Denmark being taken at 20,000, and that of Sweden and Norway at 40,000, for each year from the peace of 1815 to the end of 1827, the increase will have

See p. 65.

* See Note H. at the end.

been 720,000. The other dominions of Denmark will be viewed as a part of Germany.

There is some difficulty in determining the increase of the population in the dominions of Austria, arising from the different periods when the number of inhabitants was ascertained in the several provinces. Thus, in the Archduchy of Austria, in the provinces on the Ens and Steyermark, the census is dated from the year 1815; in Illyria, from 1818; in the Tyrol, from 1806; in Gallicia and Moravia, from 1818; in Hungary, from 1794; in Siebenburgen, from 1794; in the military frontier, from 1815; in Temeswar, from 1814: and in the kingdom of Venetian Lombardy, from 1815. The aggregate number taken from these returns, as enumerated by Baron Lichtenstern, in his *Vollständiger Umriss der Statistik des Osterreichischen Kaiserstaats*, published in 1820, amounted to 29,699,724 individuals. According to the several local returns, as published by the Geographical Board at Vienna in 1822, edited by Colonel Fallon, and framed in the preceding year, the rate of the increase of population appears to be as follows:— Austria.

In Hungary and Siebenburgen, $1\frac{45}{100}$ annually.
In Austria Proper, the Steyermack, and Siebenburgen, $2\frac{35}{100}$.
Bohemia, Gallicia, Illyria and Moravia, $2\frac{32}{100}$.
Dalmatia, Tyrol, and Venetian Lombardy, $2\frac{12}{100}$.

This statement would give as a result an increase, in twelve years, on the population of 1815, calculated at 27,000,000, of more than twenty-seven per cent., or, in round numbers, near 7,000,000. Extraordinary as this vast increase appears, it still does not exceed that proved to have taken place in Prussia by the accurate accounts of that country. It is confirmed by the only authorities

I have been able to consult; thus Blumenbach, from the returns of 1815 and 1817, calculates the number of inhabitants in the latter year at 28,112,868; Lichtenstern, in his *Handbuch der Neuesten Geographie des Kaiserstaats*, by a different mode, in the same year, makes them to be 27,857,530—255,338 less. The latter, in 1820, states them to be 29,699,724. Colonel Fallon, in 1822, shows the whole number of inhabitants to have been, in the preceding year, 30,006,849. Thus, these different authorities agree, up to the year 1821, in a rate of increase, which, if continued to 1828, would make that increase to be more than 7,000,000.

Germany, exclusive of Austria and Prussia.

Those parts of Germany which are comprehended in neither the Austrian Empire nor the Prussian kingdom, contained, at the time of the Congress of Vienna, a population of 13,600,000. I have been able to procure from Hanover, alone, the exact returns for a series of years from each province, and they show an increase in ten years at the rate of twelve per cent., or somewhat more than fourteen per cent. in the twelve years since the peace. By an official account from the kingdom of Bavaria, it appears that the population in 1818 consisted of 789,191 families, which, multiplied by four and a half, gave the number of individuals 3,552,359. As this result is not in its nature very accurate, it is only of use as showing the possible truth of two subsequent official statements. In 1821, the inhabitants were found to be 3,743,330, and in 1826, to be 4,301,004. I have also an official account from the Grand Duchy of Baden, which gives the population in 1822 as 1,090,910 persons, and in 1826 as 1,145,357, showing an increase at the rate of $1\frac{48}{100}$ annually. Whilst I give credit to the account from Baden, I must suspend my belief in that from Bavaria, until I see more clearly the way in which the

data are collected. I have no accounts from Saxony, from Wirtemburg, from Hesse Casel, Hesse Darmstadt, from Nassau, or the smaller sovereignties. From the best books describing each of these states, and from conversation with several of the professors, and other intelligent men who have devoted their attention to such subjects, I am induced to rate the increase of population much below that of Austria and of Prussia, and nearer that of Baden; taking it at the rate of 17½ per cent. in the twelve years since the peace, the increase in the portions of Germany under consideration may be assumed at 2,400,000 at the present time.

Switzerland. Switzerland utters more complaints of over population than are to be heard in any other parts of Europe. Though the emigrations from thence are more numerous than from most of the other divisions of the old Continent, yet they are not found to prevent the population from pressing with increased force against the means of subsistence. By a census taken in 1821, the inhabitants were found to be 1,783,231, and in 1827 they were 2,037,030, thus showing an increase, in six years, of 253,799. The whole augmentation during the twelve years of peace may, therefore, be safely estimated at 500,000.

Netherlands. The kingdom of the Netherlands furnishes the most correct and most detailed account of the state of its population of any country in Europe. A census is taken every five years, and at the end of each intermediate year the births are added, and the deaths subtracted, which is adjusted by the enumerations of the fifth years. One process serves to verify the other; and it is seen, by their very near approximation, that only insignificant errors are made in either. By an account printed for the information of the legislature, it is seen, that the population, which on the 1st January 1815 was 5,424,502, had ad-

vanced, on the 1st January 1825, to 6,013,478, and adding, for the three years to the 1st January 1828, at the same rate, the increase since the peace is shown to be 760,000.

France. The state of the population of France, according to the statement of Baron Charles Dupin, in his recent work, entitled, "*Forces Productives et Commerciales de la France,*" shows that the increase in that kingdom has been slower than in the other parts of Europe which he has noticed. Giving to his statement the full credence to which it is entitled, that France contained 31,000,000 of inhabitants, who increase annually at the rate of 6536 for each million, it would show an annual augmentation of 200,000, or, in the twelve years since the peace of 2,400,000 persons.

Great Britain and Ireland. The population of Great Britain, from data afforded by the three decennial enumerations of 1801, 1811, and 1821, may be safely taken to have increased at the rate of 200,000 in each year, from 1815 to 1827, or, in the period since the peace, to the amount of 2,400,000. In 1821, the population of Ireland amounted to 6,800,000, according to the enumeration made by government. The reports which have been circulated, represent the increase to be unusually rapid; it is difficult to know what degree of credit they are entitled to receive. We cannot, however, very greatly err, in estimating that increase to be equal to the proportion which has been ascertained in Great Britain, the one island in 1821 containing 14,391,631 inhabitants, and the other 6,801,827. We may thus assume the increase of the United Kingdom, since the year 1815, to be 3,500,000.

Italy. The estimate of the increase of inhabitants in Northern Italy is comprehended in that of the dominions of Austria, as far as the territories of that empire extend in it. In the dominions of the king of Naples, I take for

my guide Baron Charles Dupin, having at hand no Italian documents of equal authority on that subject. According to the official statements of 1817, the whole population at that period amounted to 6,828,558. Dupin gives for the annual rate of increase 11,111 for each million, which would thus amount to 75,850 yearly, or, for the twelve years since 1815, to 900,000.

The middle of Italy, comprehending Sardinia, the Popedom, Tuscany, Modena, Parma, Lucca, and the islands, contained, in 1817, 8,859,000 inhabitants. If the rate of increase in those states has corresponded with that of Naples, and there can be no reason to deem it slower, they must have received an augmentation of 1,200,000.

Spain.

I have no recent work on Spain relating to the state of its population, nor indeed any later than that of Ancillon, published in 1809, up to which time the population is shown by that writer to have been increasing. I remember, during the existence of the constitution, in the debates, as reported in *El Diario de las Cortes*, that vague allusions were made to the rapid increase in numbers of the people. It is not possible to regard reports which may have been mere oratorical and temporary assumptions of the individuals who uttered them. It is not, however, improbable, that some increase has been going on in spite of the internal disastrous occurrences in that country.

Portugal.

In Portugal, according to Balbi, in his *Essai Statistique sur le Royaume de Portugal et d'Algarve*, published in 1822, a progress appears up to that period. The lists are certainly very imperfect. It appears, that in the years 1815, 16, 17, 18, and 19, the excess of births above deaths, and the proportion of both to the whole number of the people, is such as to show a great but uncertain rate of increase.

Turkey in Europe.

We know nothing of the population of Turkey; and though its European territory is commonly stated to contain 7,000,000 of inhabitants, no proof of the accuracy of that statement has come under my observation. I do not, however, deem it any improbable estimation, considering what we do know of Portugal, and that these three countries contained 20,000,000 of inhabitants, to presume that they have, in fifteen years, increased 5 per cent., or 1,000,000.*

From the statement here exhibited, it appears that the inhabitants of Europe have, within the period that has elapsed since the general peace, been augmented by the number of 28 or 29,000,000. Thus, there have been added to the previous consumers of the products of the soil, at least double the number of persons that were existing in the island of Great Britain in the year 1821. It hence deserves the most serious scrutiny to ascertain, if, within the term under consideration, the whole soil of Europe has received such an augmentation of productive force, as to enable it to supply double the quantity of food which Great Britain afforded in the year 1821. If it should appear, on further investigation, that whilst the consumers have been rapidly increasing, the reserved store of food has been lessened, and is likely to be kept lower than at former periods, and to be but barely sufficient, with seasons of average productiveness, to support the whole of the inhabitants, it will be impossible not to feel some degree of anxiety for the fate of the lower classes in every country, who always become the victims of scarcity long before those of the higher classes know any thing of such scarcity, except by an advance in the price of bread. To them, corn is the most insignificant article of their expenditure, whilst to the poor it amounts to much the largest portion of the cost of their existence.

* See Note I. at the end.

If the occurrence of a year of productiveness below the average should present itself, with the present diminished stock of corn, or if the next harvest should be delayed beyond the usual time, the sufferings of the more indigent classes will be attended with a degree of intensity, which no friend to humanity can view in anticipation without feeling a deep interest.

I have ventured to submit this statement of the growth of population in Europe collectively to your lordships' consideration, rather from its connexion with the trade in corn, than from any apprehension that it has been overlooked in the extensive views your lordships are accustomed to take of the various topics which come under your attention, or from any fear that, with the fact of this great increase of consumers before them, the legislators of any country will enact any laws whose tendency may be to check production.

I am confident, that, with respect to food, it must be the object of the labours of your lordships and the legislature, first, that a sufficient supply of corn should always be provided; and secondly, that the prices of it should be so fairly, and, as far as possible, so steadily fixed, as, whilst the producer draws an equitable profit, the consumer shall pay for it only a remunerating price.

Netherlands.

I have deferred, till the close of this report, some statements respecting the nature of the corn trade in the Netherlands, in the expectation of receiving from that country documents which would have furnished me with authority to write more decidedly than I venture to do without producing the evidence. From some causes, for which I am unable to account, I have been disappointed in my expectations beyond the time I had reckoned upon; and if those accounts should hereafter reach me, I shall take the liberty to submit them to your lordships in a short supplementary report.

See Appendix, XLV.

I obtained indeed, at the Hague, an account which, though not strictly official, is entitled to some degree of confidence. This shows, that the quantity of each description of grain, except oats, which the supply of the United Kingdoms requires, has exceeded its own production, during the eight years from 1815 to 1822, both years inclusive.

The Imports and Exports of the whole period are as follow:—

KIND OF GRAIN.	Quarters Imported.	Quarters Exported.	Excess of Imports.	Excess of Exports.	Aggregate Excess of all Imports over Exports.
Wheat	1,667,071	1,622,236	44,735		
Rye	3,134,867	444,094	2,690,773		
Barley	1,187,651	480,418	707,333		
Oats	423,137	1,122,531	. . .	699,394	
Buck Wheat . . .	60,826	35,887	24,939		
Winter Barley . .	21,630	2,256	19,374		
In eight years .	6,495,182	3,707,422	3,487,154	699,394	2,787,760
The average quantity during the eight years . . .	811,885	463,427	435,889	. . .	348,442

Until a late period, the speculative trade in corn, in Amsterdam, Rotterdam, and Antwerp, was very extensive, and employed large portions of capital. When the calamitous harvest of 1816 occurred, the merchants there had their storehouses furnished with such stocks of grain as were suitable to their usual extent of trade, when the prices were low. Hence, in the years 1816, 1817, and 1818, they were enabled to export the large quantity of 1,226,441 quarters of wheat, thus exceeding, in those three years, the amount of their imports by 845,407 quarters.

Since that period, the corn trade of the Netherlands has taken the same course as in the British dominions, and on the Continent of Europe. Much of the capital has been lost to the possessors of it; and of what was

saved, a great portion has been applied to other commercial objects, or to speculations in funds and exchanges. The trade in corn now, except as regards the home demand, including that required for distillation, which must always be considerable, is become of very little importance as a national object; and the stocks on hand have been reduced there, as well as elsewhere, to very trifling quantities.

Storing of corn.

As I made some inquiries respecting the storing of corn at Antwerp, Rotterdam, and Amsterdam, I beg to submit to your lordships a view of the expenses attending on it in those places, where alone any can be securely and cheaply deposited, to wait for such an opening of our ports as may make the transmission to this country a beneficial operation. At Antwerp, the following statement was furnished by two eminent merchants, extracted from their books, in which the two exactly agreed:

Antwerp

"Receiving and storing 500 hectolitres of wheat, or other grain, $2\frac{1}{4}$ cents per month: for turning over, two days in each month, two guilders." As 500 hectolitres are equal (at ten hectolitres to $28\frac{1}{2}$ imperial quarters) to 176 quarters, the cost is 13 guilders 25 cents per month. "The guilder being of the value of 20*d.* at the current exchange of 12, would make the cost of storing and turning $1\frac{89}{170}d.$, or, as near as can be stated in money, $1\frac{1}{2}d.$ per month for each quarter of corn."

Rotterdam and Amsterdam.

At Rotterdam and Amsterdam, the expenses of warehouse rent and turning varies according to circumstances and situation, from 2*d.* to $2\frac{1}{4}d.$ per month. The expense of lighterage and metage amounts to 60 guilders, or five pounds on 500 quarters, or a small fraction more than two-pence per quarter.

As far as regards the expense of storing, it must be much more advantageous to a speculator to keep his corn in

Rotterdam and Amsterdam.

Antwerp or Rotterdam, than in England, and especially than in London.

See Appendix, No. XLIV.

By an account of real sales of 410 quarters of oats, as rendered by one of the first mercantile houses in London to the shipper at Amsterdam, of the correctness of which I have the fullest proof, it appears that the metage out of the ship was 6¾*d.* per quarter; that the lighterage and landing was 7½*d.*, and the metage and porterage on the delivery from the warehouse was 6*d.* The granary rent and insurance against fire for fifty weeks, with the expense of turning, is charged 63*l.* 10*s.* 6*d.*, being 25*s.* per week, or at the rate of three-pence per month, or double that charged at Antwerp.

By this account of sales, it appears that though the cargo of oats was sold at 19*s.* per quarter, yet the duty of 2*s.* per quarter, the metages, storing, porterages, freight, primage, landing, brokerage, loss in measure, interest on advances, with commission and other charges, so reduced the amount of the sales, that the shipper at Amsterdam was only credited for his oats at a rate a fraction less than 6*s.* the quarter.

This specimen of the expenses of consignments of corn to London, upon the speculation of waiting till our ports are open, may serve, with others of a similar kind, which several foreign merchants have shown to me, to account for the enormous losses in capital, which those engaged in that kind of trade have sustained of late years.

WILLIAM JACOB.

Corn Department, Board of Trade,
March 16, 1828.

NOTES.

A. *Page* 45.

THAT no doubt might exist as to the accuracy of the representations of Von Thunen, even upon those parts of the subject which lay beyond his own personal observation, I insert here the details of the expenses actually incurred by importing wheat from Rostock, as communicated to me by an eminent importer; who, at that time, (5th April 1828,) had received a cargo from that port.

	Per Quarter. s.	d.
Freight, primage, &c.	5	0
Insurance and risk beyond insurance	1	0
Entry and lighterage	0	6
Metage inwards	0	6
Landing	0	4
Delivering	0	3
Metage out	0	3
Commission for buying	1	0
Factorage for selling	1	0
Del credere	0	7
	10	5
Supposing the duty to be at 20*s*., and that the wheat sells at 60*s*., there is one month's credit allowed, the interest on which is	0	5
Commission for selling, 2 per cent. on 60*s*.	1	9
	12	7
This is the expense on the wheat if sold on arrival without the intervention of storing; the expense of which is 1*d*. per week per quarter; on the average this may be taken at six weeks	0	6
There will commonly be a loss on the measure of 2½ per cent.	1	6
Leaving the whole expenses	14	7

B. *Page* 48.

That a rapid increase had taken place in the population of Mecklenberg I was everywhere assured, but could obtain no statistical answers; the best is from my valuable friend, Baron Voght, who, in a letter, dated the 8th of April, says "In Mecklenberg Schwerin, and Strelitz, taken together, the population in the year 1817, was 380,254; and the best informed people now state it at 475,000, calculated by the difference between births and deaths. There have been no emigrations."

C. *Page* 68.

The releasing the peasantry of Mecklenburg from their feudal slavery was commenced by an individual in a voluntary and most impressive manner. Baron the Land Marshal Maltzahn, on the 16th of October 1816, the anniversary of the battle of Leipsic, which had freed Germany from the dreadful tyranny of France, celebrated the day by releasing all the subjects (*unterthanern*) on his estates from their feudal condition. At an assembly of the States, held at Sternberg in March 1818, the proposition was made to extend this freedom generally through the two duchies, and was resolved on by a great majority. It received the form of a law, sanctioned by the Grand Duke, in Schwerin, in May of that year, and in Strelitz two years later, in February 1820. The power of dismissing the subjects was only to be exercised by the lords, gradually, and at fixed periods, and only to be mutually enjoyed to its full extent by either party in October 1824, when all feudalism ceased.

In Denmark the abolition of personal bondage had commenced at an earlier period, though it has not been so completely extirpated as in Mecklenburg and Prussia. The first attempt made to remove this evil was the spontaneous act of an individual nobleman, Count Rantzau, who, about the year 1750 or 1760, having visited England, adopted our system of letting his estate at Aschberg in farms to tenants, whom he freed from their feudal bondage. This example was soon followed by other proprietors, who converted their subjects into tenants for life, or for a term of years. The crown, in 1765, made the experiment on the royal domain of Drage, in the island of Allsen. When this was found to have succeeded, the same plan was pursued, and, in 1788, was extended to all the estates belonging to the king.

D. *Page* 98.

To show the effect on the prices of wheat, which has been produced by any want of that article being felt or anticipated in England, I have framed from the authentic documents the following table, which shows in every year, when we have imported more than 500,000 quarters from the whole world, including Ireland, to what height they have risen.

Year.	Quarters imported.	English prices.	Dantzic prices.
1796	879,200	85/8	70/10 to 79/1
1800	1,264,520	113/6	69/4 to 82/11
1801	1,424,766	134/	79/1 to 94/
1802	647,664	71/11	49/3 to 66/4
1805	920,834	87/7	71/7 to 86/6
1810	1,530,691	107/11	Dantzic closed by the French.
1813	562,329	118/1	
1814	852,566	76/7	
1817	1,089,855	106/11	70/7 to 115/4
1818	1,694,261	84/10	70/6 to 83/

E. *Page* 125.

The law of 1815 produced an effect, certainly not intended by its framers and advocates, similar in kind, though not in degree, to that which was caused by the ancient laws against regraters and forestallers. There being no intermediate holders of stores of wheat, a very small surplus reduced the prices excessively, and a very small deficiency raised them as enormously in both cases. Thus, in the year 1286, according to Stowe, wheat rose from 2/6 to 16/ per quarter, in the next year declined to 3/4, and in the following year fell to 1/ per quarter. The effective value of money in that period, as compared with the present, has been calculated as one to three; whatever the proportion in those two periods may have been, there was no fluctuation in the value of money between 1286 and 1289. After the death of Edward I., and during the intestine wars that followed, astonishing fluctuations are remarked by the same historian. In 1316 wheat rose to 30/ or 40/ per quarter, this caused a maximum of the price to be fixed, which seems to have increased the evil it was intended to cure, for wheat rose in 1317 to 53/, and at one short time was sold as high as 80/. After

the harvest of that year, it fell again to 6/8. In 1387 wheat was at 2/, and in 1390 at 16/; in 1434 it was 26/8, and the next year 5/4. In subsequent periods similar quick variations may be discovered, till almost our own times. It has been the same of late years; a very small deficiency in 1817 raised the price to 130/, and a small surplus in 1822 depressed it to 38/. It seems scarcely possible that corn can ever be maintained at a remunerating and an equable price, without free scope being given to the operations of speculation in it. Such speculations can alone prevent an excessive decline in abundant seasons, by withdrawing the surplus, or an excessive advance in unfruitful seasons, by bringing forth the stores accumulated in times of depression.

F. *Page* 134.

Mr. Von Thunen remarks in his communication, that if wool were to fall to half its present price, it would pay a profit to the growers of it; this, with Mr. Iverson's remarks on the want of sale for the flesh of sheep, present an occasion for making a few remarks upon a subject which has been recently forced on the public attention.

It appears, that the experiments to produce the finest wool and the best mutton from the same animal have failed of success. The foreign agriculturist, having no consumers at hand that can pay the price of good meat, and having a market in other countries for fine wool, where it produces high prices, pays his chief attention to the wool. The best Saxon sheep, of the Electoral breed, are not worth more than from 6/ to 10/ per head. The annual clip of the wool frequently amounts to more than the value of the sheep. There are so few consumers of mutton, that the carcase will scarcely sell for one penny per pound. In England, where good mutton finds abundance of consumers, the short wool which grows on the South Down sheep is scarcely equal in price to one-tenth part of the meat. It is hence natural that the English agriculturist should pay his chief attention to the production of the best meat.

The reason that can justify the complaints of the low price to which wool has fallen, may be judged of by a comparison of the value which the whole animal has realized at different periods, taking a South Down sheep, weighing ten stone, as the measure of comparison.

1822.				1827.			
10 stone mutton, 4/	£2	0	0	10 stone mutton, 4/10	£2	8	4
2½ lbs. wool, 1/6	0	3	9	2½ lbs. wool, /9	0	1	10½
	2	3	9		2	10	2½

Thus, though the wool has fallen, the whole animal produces a much higher price. If, by any prohibition of foreign wool, the price of cloth were to be raised, and the consumers of meat diminished, as they must be by the diminished numbers of prosperous manufacturers who now can eat it, the consequence to the farmers in a year or two would be, that the flesh of 80lbs. would fall three times as much in amount as the 2½ lbs. of wool could rise, if it should rise at all, which must be doubtful, for the consumers of cloth, as well as the makers of it, would, probably, demand a less quantity.

G. *Page* 151.

There is no government in Europe, the statistical accounts of which are so regularly and correctly kept, and the knowledge of which is so generally circulated, as that of Prussia. The consequence of the publicity thus given, is a full conviction in the minds of the subjects, of the economy and justice with which the duties of government are discharged. In the kingdom of the Netherlands, a statistical bureau was instituted in July 1826, which discovers, as far as their Reports have been yet made public, a degree of care, accuracy, and assiduity, such as may be expected from the enlightened and patriotic views of the king and the legislative bodies. Several of the other continental governments have paid great attention to this subject; all feel the necessity of paying such a degree of attention to the extension of knowledge among their subjects, as induces them to make official communications on the state of their respective countries. Knowledge of this kind is more generally diffused, and with more accuracy, among intelligent men, than it is even in this country. Thus I have generally found it easy in any state to obtain the number of acres of land under the plough, in pasture, in woods, or in vineyards; the number of horses, cows, and sheep, and some tolerably near approaches to accuracy as to the annual value of the productions from each of those branches. Even in many, the number of pounds of wool or flax annually spun, of looms at work, and the amount of their produce; the

number of forges and smelting furnaces, with the quintals of iron goods made, are known with an approximation to exactness, which we have not attained in any of the branches of industry which are not under the inspection of the Commissioners of Excise.

In viewing the quantity of food produced, to say nothing of the other productions of our agriculture, we have only vague conjectures, or most unsatisfactory estimates. From malt being under the Excise, a tolerable calculation, though necessarily vague, may be made of the quantity of barley grown in each year, and then by a guess at the average produce of each acre, an approach to something a little akin to probability; but in the quantity of wheat, and of other corn, we have nothing but uncertainty and doubt, to calculate on. It is the same with those productions, whether of the soil or of the mines, which are the basis of our manufacturing industry. We can only guess, and that very rudely, at the annual quantities of wool, flax, iron, lead, tin, copper, and coals, or at the value of the commodities, into which such substances are afterwards converted. Our annual production and consumption of other articles of food are as unknown as that of corn. We neither know the stock of horses, cows, and sheep, the number yearly of the two latter slaughtered, or the value of the butter, cheese, wool, and skins they produce.

The ignorance on these subjects must be felt by every one, who either in his closet or in a public capacity, is desirous of founding his opinions on statistical rather than on metaphysical grounds. The difficulty of obtaining information on these topics would disappear with any judicious efforts that should be directed towards the removal of it. This has been found to be the case with respect to the ascertainment of the amount of our population. Those who can look back forty or fifty years, will see or recollect the discordant opinions entertained on that subject, some contending that we were declining in our numbers as rapidly as, according to their assumptions, we were in everything else that usually constitutes national prosperity; whilst others, of a less morbid temperament, maintained that over-population and other indications of advancement were discoverable; but even the latter did not venture so far as the actual enumerations, that have since taken place, show to be the truth.

There would be no difficulty but might be easily surmounted in collecting such proofs of the increased production and consumption of the domestic commodities in the country, as when promulgated in an authentic and compendious form would tend to satisfy the

minds of the public, that we were making a constant progress in our prosperity, and as would effectually silence the efforts of those enemies to tranquillity, who pander to the gloomy or factious feelings of the community.

'The expense of an establishment of the kind here suggested, would be but small, and it might be easily converted into an engine of economy. The greatest portion of information on the statistical advances of this country are drawn from the mass of valuable papers annually printed by order of the two houses of parliament. From their great bulk and their want of concentration, they are but little known beyond the circle for whose immediate use they are designed; few entire collections of them are to be found; and for want of proper indexes, till of late years, the difficulty of reference was very great. The expense of printing them is enormous; and considering how much matter, and how large a proportion of the whole is of scarcely any interest; and considering also how frequently accounts are called for which are to be found, with slight variations, in former years' papers, and how frequently they are called for to gratify private, and sometimes useless curiosity, this head of expenditure appears capable of a reduction which would far more than cover any expense that such a department, as is here suggested, would amount to. In it breviates might be formed of papers more voluminous, but of little real importance; reference might always be had to former accounts, similar to what are required, or so nearly similar as to be equally satisfactory; and, in an abridged form, statistical accounts might be prepared to be laid before parliament contemporaneously with the annual revenue accounts, which would exhibit the actual state of the internal production and consumption of the country, which, in anticipation of increasing prosperity, we may venture to predict, would be both gratifying and advantageous to the kingdom.

H. *Page* 152.

'It may not be improper here to attempt a comparison of the nutritive value of land when cultivated with wheat and when cultivated with potatoes. In such a comparison, as the requisite data must be rather conjectural than exact, though much reliance cannot be placed on it, it may not be wholly without some advantage.

If an acre of land, with the same degree of labour bestowed upon

it, and the same portion of manure applied to it, yields 300 bushels of potatoes, it may yield 24 bushels of wheat. The food produced by the former, at 38lb. to the bushel, will then be 11,400lbs. in weight; the food from the latter, at 60lbs. to the bushel, will be 1,440lbs., or the weight of the wheat will be about one-eighth that of the potatoes. It is difficult to ascertain the quantity of nutrition in a given quantity of either wheat or potatoes. The chemical experiments of Sir Humphry Davy show that wheat contains about three times the quantity of mucilage or starch, and of gluten or albumen, of what is contained in a like weight of potatoes; but that potatoes contain also about from three to four per cent. of their weight of saccharine matter, in which wheat is deficient, though it abounds in barley. The difficulty of estimating the nutritive power of the two substances is not wholly removed by this appeal to chemistry, because we are still ignorant of the effect which the combination of the saccharine matter with the mucilage and gluten may produce when used as aliment. A small addition of the former to the two latter may communicate to the whole mass a degree of nutritive power very far exceeding its own separate proportion of weight. Some inquiries have been made as to the actual quantity of potatoes consumed per head in families in Ireland, in Prussia, and in Saxony, but the answers varied to such a degree, as to be little satisfactory. It does not appear to me to be very far from the fact, if we estimate the proportion of the nutritive power of wheat to that of potatoes, as about seven is to two; or that 2lbs. of wheat afford as much subsistence as 7lbs. of potatoes, though it may be more than doubtful if it affords so much nourishment. We have seen before, that the mean weight of the two kinds of food, from the same extent of land, is nearly as one to eight; and now assume that the consumption of an individual is yearly one quarter, or 480lbs. of wheat, or an equivalent quantity of potatoes being 1680lbs., then one acre of wheat will produce sustenance for three persons, or one acre of potatoes will afford it to six and five-sixths. If the foregoing estimates be correct, it will appear that for each million of inhabitants that is added to the population, there should be provided either three hundred and thirty thousand more acres of wheat, or about one hundred and fifty thousand more acres of potatoes.

The extension of potatoe cultivation, whether as food for man or for cattle, or, as on the continent, for converting into ardent spirit, does not appear, as far as I have been enabled, with the uncertain

data furnished, to estimate, to yield a substitute for bread corn nearly equal to the augmentation of the number of consumers, which the more accurate data on that head supply.

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The increased length of human life may be owing to a variety of auxiliary causes, but one of the most prominent seems to have been the introduction of the vaccine inoculation. Duvillard, in his work *Analyse et tableau de l'influence de la petite vérole sur la mortalité*, calculates, that of each million persons born, 85,685 were formerly carried off by the small pox; that by the extirpation of that malady, the medium duration of human life, instead of being as before, 28¾ years, has been extended to 32¼ years; and that, consequently, the population which would arise from 1,000,000 births, would be, in the first case, 28,750,000, and in the second case, 32,250,000. Susmilch estimates the mortality commonly arising from the small pox as two in twenty-five, but when of a very malignant kind as one in six; on the other hand, the mortality caused by vaccination, he calculates to be not more than one in five hundred.

APPENDIX.

No. I.—An Account of the Prices of Corn, in the Market of Embden, on St. Martin's Day, from the Year 1771 to the Year 1826.

Year.	Wheat.	Rye.	Barley.	Oats.	Beans.	Pease.
	Quarter.	Quarter.	Quarter.	Quarter.	Quarter.	Quarter.
1771	35/	31/8	20/	11/8	20/	28/4
1772	31/8	30/	21/8	10/	21/8	36/8
1773	35/	25/	16/8	13/4	15/	30/
1774	28/4	20/	15/	11/8	15/	26/8
1775	26/8	25/	13/4	6/8	13/4	25/
1776	23/4	18/4	11/8	6/8	11/8	26/8
1777	25/	16/8	10/	6/8	11/8	25/
1778	25/	18/4	11/8	10/	13/4	25/
1779	21/8	16/8	10/	6/8	10/	20/
1780	23/4	21/8	13/4	6/8	16/8	21/8
1781	25/	23/4	13/4	6/8	11/8	23/4
1782	28/4	25/	18/4	11/8	16/8	48/4
1783	28/4	21/8	20/	11/8	18/4	28/4
1784	30/	21/8	23/4	10/	16/8	26/8
1785	33/4	21/8	16/8	11/8	23/4	30/
1786	26/8	26/8	16/8	11/8	20/	28/4
1787	30/	26/8	15/	13/4	18/4	40/
1788	30/	23/4	15/	10/	15/	36/8
1789	50/	30/	16/8	11/8	18/4	36/8
1790	35/	23/4	16/8	13/4	18/4	28/4
1791	30/	21/8	16/8	11/8	18/4	28/4
1792	35/	26/8	18/4	13/4	20/	40/
1793	35/	30/	20/	16/8	21/8	41/8
1794	36/8	33/4	20/	16/8	26/8	45/
1795	76/8	48/4	28/4	16/8	25/	83/4
1796	50/	28/4	16/8	11/8	18/4	53/4
1797	36/8	23/4	15/	11/8	15/	30/
1798	31/8	23/4	18/4	13/4	16/8	36/8
1799	53/4	36/8	23/4	26/8	25/	51/8
1800	68/4	53/4	38/4	25/	48/4	56/8
1801	70/	41/8	30/	16/8	18/4	—
1802	58/4	45/	30/	15/	31/8	—
1803	46/8	31/8	20/	20/	21/8	45/
1804	65/	35/	26/8	18/4	26/8	—
1805	73/4	56/8	28/4	20/	—	—
1806	51/8	53/4	31/8	20/	31/8	—
1807	48/4	43/4	30/	16/8	30/	—
1808	38/4	33/4	25/	13/4	25/	—
1809	43/4	30/	26/8	18/4	28/4	—
1810	45/	28/4	18/4	13/4	18/4	—
1811	50/	31/8	16/8	10/	15/	—
1812	66/8	50/	35/	13/4	21/8	—
1813	46/8	35/	20/	11/8	20/8	—
1814	43/4	30/	18/4	13/4	21/8	—
1815	43/4	28/4	16/8	8/4	16/8	—
1816	58/4	43/4	26/8	13/4	20/	—
1817	70/	48/4	30/	15/	31/8	—
1818	45/	48/4	35/	20/	41/8	—
1819	28/4	26/8	18/4	8/4	20/	—
1820	23/4	21/8	10/	6/8	10/	—
1821	23/4	16/8	10/	6/8	8/4	—
1822	21/8	20/	11/8	6/8	11/8	—
1823	16/8	15/	6/8	5/	6/8	—
1824	16/8	13/4	13/4	6/8	13/4	—
1825	20/	16/8	11/8	10/	13/4	—
1826	26/8	26/8	18/4	20/		—

No. II.—Estimate of the Extra Expenses of Production of Wheat and Rye on a Surface of Six Diemate, or $8\frac{44}{100}$ Acres in the Embden Districts, besides those incurred by the Operation of fallowing.

	£.	s.	d.
Clearing out the ditches and putting 136 rods of mud over the ground, at $4\frac{1}{2}$ pence, to day-labourers	2	10	3
Second covering 198 rods, at $1\frac{1}{2}$ pence, to day-labourers	1	11	1
Clearing away the mud two times during the rotation, 136 rods, at $1\frac{1}{2}$ pence	1	1	10
The spreading of the mould over the fields, and the digging out the heaps, requires six days labour by two servants, two teams, and two day-labourers, the expense of which is,—			
Two teams, each day	0	5	0
Two servants	0	2	7
Two labourers, with board	0	2	9
	0	10	4 a day
Making, for six days	3	2	0
The loosening or pulverising of the mould requires one day's labour, two teams, and two servants	0	7	7
	£8	13	4
£8. 13*s.* 4*d.* divided over a space of seven years, making each year	1	4	9
The Winter Corn requires three times ploughing, or one more than the Summer Corn. Expenses for four days labour, with two teams and two servants, at 7*s.* 7*d.* a day	1	10	4
Harrowing	0	15	2
After the sowing, ten furrows are opened on each field; the cross heaps are ploughed two times, and removed away with the spade, which requires two teams and servants one day 7*s.* 7*d.*			
Day-labourers 3*s.* 5*d.*	0	11	0
Total extraordinary expense on $8\frac{44}{100}$ acres per annum	£4	1	3
Or extra average expense per annum on one acre, besides that of the fallow	0	9	7
Making for a Calenberg morgen of 185 Calenberg square rods (two fardingdeales 23 poles) 6*s.* 2*d.*			

N. B.—The expense of fallowing has been purposely omitted in this account, and is brought under a separate head, it being expected, and to be hoped, that according to sect. 10 of the Regulation of the Ground Tax, the present taxation, based on the fallow, will be altered and calculated on the fresh manuring, by which all the extra expense of cultivation might be unnoticed and included in the ordinary expenses. However, were even the expense of fallowing omitted, there would be, on the whole, no real loss, as the expenses of cultivation calculated to be $51\frac{1}{2}$ groschen the morgen (or 6*s.* 2*d.* the 2 roods and 23 poles), exceed already the maximum of the limits fixed at one corn by sect. 12 of the regulation; one corn being, according to sect. 14, equal to two himten. ($1\frac{76}{100}$ bushel), and at the value of 1*s.* 9*d.* the himten, would give 3*s.* 6*d.* for 1.76 bushel.

No. III.—Estimate of the Extra Expenses of Production of Wheat and Rye on the Surface of Six Diemate or $8\frac{4}{10}$ Acres, in the Embden Districts, besides those incurred by the Operation of Fallowing.

	£.	s.	d.
Cleaning out the ditches, and putting 136 rods of mud over the ground, at $4\frac{1}{8}$ pence to day-labourers	2	10	3
Second covering, 198 rods, at $11\frac{1}{8}$ pence to day-labourers	1	11	8
Cleaning away the mud two times during the rotation, 136 rods, at $1\frac{1}{2}d.$	1	1	10
The spreading of the mould over the fields, and the digging out the heaps, requires six days labour by two servants, two teams, and two day-labourers, the expense of which is,—			
Two teams, each day	0	5	0
Two servants	0	2	7
Two labourers, with board	0	2	9
£0 10 4			
Making for six days	3	2	0
The loosening or pulverising of the mould requires one day's labour, two teams, and two servants	0	7	7
	£8	13	4
£8. 13*s.* 4*d.* divided over a space of seven years, making each year	1	4	9
The Winter Corn requires three times ploughing, or one more than the Summer Corn. Expenses for four days labour, with two teams and two servants, at 7*s.* 7*d.* a day	1	10	0
Harrowing	0	15	2
After the sowing ten furrows are opened on each field; the cross heaps are ploughed two times, and removed away with the spade, which requires two teams and servants one day 7*s.* 7*d.*			
Day-labourers 3*s.* 5*d.*			
	0	11	0
Total extraordinary expense on $8\frac{4}{10}$ acres per annum	£4	1	3
Or extra average expense per annum on one acre, besides that of the fallow	0	9	7
Making for a Calenberg morgen of 185 Calenberg square rods (two fardingdeales 23 poles) 6*s.* 2*d.*			

N.B.—The expense of fallowing has been purposely omitted in this account, and is brought under a separate head, it being expected, and to be hoped, that according to sect. 10 of the Regulation on the Ground Tax, the present taxation based on the fallow, will be altered and calculated on the fresh manuring, by which all the extra expense of cultivation might be unnoticed, and included in the ordinary expenses. However, were even the expense of fallowing omitted, there would be, on the whole, no real loss, as the expenses of cultivation, calculated to be $51\frac{1}{2}$ groschen the morgen (or 6*s.* 2*d.* the 2 roods and 23 poles), exceed already the maximum of the limits fixed at one corn by sect. 12 of the regulation, one corn being, according to sect. 14, equal to two himten ($1\frac{7}{10}$ bushel), and, at the valuation of 1*s.* 9*d.* the himten, would give 3*s.* 6*d.* for 1.7/6 bushel.

No. IV.—An Account of the Quantities of Wheat, Rye, Barley and Oats, imported into the United Kingdom, from the undermentioned Countries, from 1816 to 1826, both Years inclusive; distinguishing each Year.

COUNTRIES.	YEARS.	Quantities imported into the United Kingdom.							
		WHEAT.		RYE.		BARLEY.		OATS.	
		Qrs.	*Bus.*	*Qrs.*	*Bus.*	*Qrs.*	*Bus.*	*Qrs.*	*Bus.*
Duchy of Mecklenburg	1816*								
	1817	31,926	6	4,779	7	5,624	0	2,013	7
	1818	74 485	6	1,802	2	67,874	4	7.554	5
	1819	38,742	3	2,627	4	28,899	4	10,291	1
	1820	46,960	5	232	6	4,928	4	23.112	0
	1821	4,069	4	110	7	4,363	2	8,227	0
	1822	772	6	—		3,605	5	3,728	2
	1823	—		—		—		935	0
	1834	11,737	7	—		9,024	0	42,099	7
	1825	58,437	7	200	1	51,138	1	20,532	4
	1826	82,128	7	6,426	6	49,351	0	87,762	3
Kingdom of Hanover	1816*								
	1817	20,565	1	1,488	7	1,250	3	40,377	2
	1818	7,184	6	312	5	2,720	1	56,622	7
	1819	2,081	4	—		524	5	17,967	4
	1820	—		—		—		22,637	5
	1821	—		—		—		4,618	4
	1822	219	3	—		—		3,662	7½
	1823	—		—		—		—	
	1824	542	2	—		451	6	50,059	2
	1825	788	3	—		4,162	0	8,716	3
	1826	2,179	1	431	4	4,619	6	86,193	4
Duchy of Oldenburg	1816*								
	1817	1,761	4	—		322	0	1,325	4
	1818	5,915	7	—		2,103	3	1,648	1
	1819	1,625	0	—		143	6	608	3
	1820	—		—		—		844	4
	1821	—		—		—		—	
	1822	—		—		—		—	
	1823	—		—		—		435	5
	1824	520	3	—		—		11,842	0
	1825	—		—		3,670	7	1,219	4
	1826	1,068	3	402	3	1,679	2	26,155	6
Denmark (including the Duchy of Holstein)	1816	5,999	0	25	0	3,126	7	5,720	7
	1817	18,663	1	3,703	2	43,115	3	82,968	4
	1818	63,786	2	1,169	3	143,115	5	125,602	1
	1819	19,645	4	—		64,083	1	32,459	4
	1820	30,252	7	—		6,360	4	110,781	3
	1821	1,848	6	—		3,349	3	21,580	0
	1822	405	0	—		1,574	5	13,064	7
	1823	1,121	0	—		—		5,618	3
	1824	2,754	3	—		8,226	4	95,973	0
	1825	26,970	1	—		146,724	7	73,296	1
	1826	61,981	6	9,909	1	108,447	3½	177,157	0
Kingdom of the United Netherlands.	1816	59,161	4	2,274	2	5,733	6	50,627	2
	1817	69,758	2	5,552	7	6.400	2	111,452	7
	1818	255,784	6	4,164	1	159,503	5	292,399	1
	1819	101,443	3	1,167	1	18,577	4	65,836	0
	1820	7,750	3	—		46	7	69,667	5½
	1821	2,615	2	—		821	6	16,574	5
	1822	—		—		33	0	3,547	0
	1823	236	6	—		9	0	3,648	1⅛
	1824	1,792	0	—		142	0	130,497	1
	1825	14,480	0	10	0	20,709	6	25,858	5
	1826	7,381	0	11,272	6	15,629	1	271,965	7

* The importations from these countries in the year 1816 cannot be stated, as the entries from thence were recorded in the official books under the general head of Germany, previously to 1817.

Inspector-General's Office, Custom-House, London; 3rd December, 1827.

WILLIAM IRVING.

No. V.—An Account of the Quantities of Wheat, Rye, Barley, and Oats, imported into the United Kingdom, from the 5th January, 1827, to the 10th October last; distinguishing each Country, viz. Mecklenburg, Hanover, Oldenburg, Denmark, the Hanseatic Towns, and the Netherlands.

Countries.	Wheat.		Rye.		Barley.		Oats.	
	Qrs.	Bus.	Qrs.	Bus.	Qrs.	Bus.	Qrs.	Bus.
Duchy of Mecklenburg	16,709	3	52	1	29,265	7	80,559	7
Kingdom of Hanover	—		—		3,404	7	50,072	0
Duchy of Oldenburg	1	7	—		1,807	1	19,860	6
Denmark, including Duchy of Holstein	19,898	4	70	1	39,492	7	119,612	0
Hanseatic Towns	5,025	0	1,638	4	15,503	4	107,028	4
Kingdom of the Netherlands	2,764	3	986	3	9,310	3	215,798	3
Total importations from the above Countries, in the three quarters ended 10th October, 1827	14,399	1	2,747	1	98,784	5	592,931	4

Inspector-General's Office, Custom-House, London, 18th December, 1827.

William Irving.

No. VI.—Letter from the Vice-Consul in Brake, to the Consul General Canning, on the Corn Trade of the Duchy of Oldenburg.

Sir, Brake, 7th Nov. 1827.

In reply to your respected favour of the 10th ultimo, I must regret that my answers to your various questions it contains, cannot prove entirely satisfactory.

There are no means of obtaining, with any accuracy, the information as "to the quantities of Grain of the growth of any year prior to the harvest of 1827, stored at Oldenburg, Brake, &c.," and the Public Authorities would be more puzzled by such a question put to them than I am, as they have no other sources from which to obtain the means of replying to them, than by inquiry from the very few merchants resident in Oldenburg.

That city has little or no external commerce, and the very traders resident there, confine their operations to the mere supplies of the place, and its vicinity, excepting a barter commerce they carry on with the shopkeepers, distillers, and farmers, in that part of the duchy formerly belonging to the Bishopric of Munster. These latter bring their rye and some wheat to Oldenburg, when the prices will pay for the trouble of transport, and exchange them for salt, coffee, sugars, and the like, which the Oldenburg dealers purchase and receive from the Bremen merchants; but when the prices are low, they prefer bartering for the same, the produce of their distilleries; the consumption of common Geneva, or corn, spirits, being

immense; and which, from Oldenburg, is sent into other parts of the dukedom, where distilleries are less lucrative, and more sparingly licensed.

This trade is in the hands of very few dealers.

When the prices of grain are not such as will repay the expense of transport, the wants of the city are exclusively supplied from the adjacent country, and from the principality of Jevor, from whence the communication by the Weser and Heuet is light.

Thus, as the stocks of grain in the city are daily decreasing or augmenting, it would be impossible to fix any average rate at which the stock in store at any particular period, and particularly of the growth of any one year, can be ascertained; as it is more than probable that the stock in store has generally been of the growth of two, three, or more preceding harvests.

The merchants carrying on the grain trade in Oldenburg, according to the before-mentioned places, have the means of storing between 500 or 600 lasts, according as the prospects of gain may induce them to speculate; but it never is made a depôt for account of foreign merchants.

In this place it is quite different; the grain stored here being mostly for Bremen account, whose merchants, waiting opportunities of exporting, prefer housing it here, to the expense of transport up to Bremen.

In the winter of 1823, all the stores here were filled, but not with the produce of the harvest of any one season: the quantities then in granary were:—

Wheat, (Baltic, or upper country produce) .	134	Lasts.
Rye, (kiln-dried Baltic)	156	—
Oats, of this country	489	—
Barley ditto	38	—
Beans ditto	59	—
Total Lasts . .	876	

In a neighbouring village and its vicinity, there were stored in the hands of country speculators of oats 400 lasts. The town of Elsfleth, near this place, had in store about oats 350 lasts, but the above quantities of this country grain were by no means the growth of 1823, but of previous years also.

When there is no demand for exportation, only the necessitous farmers offer their grain for sale, and whose wants force them to sell at any price offered by the country dealers, or by the agents of the Bremen speculators. The more opulent have always conveniences in their dwellings for storing as much as they can grow; and, on any sudden demand, the country buyers know where stocks are to be found in the first hands.

The waste in grain depends materially on its quality. Wheat and Rye lose much less in measure than barley and oats; and of these two latter sorts, the lighter the quality, the greater becomes the loss in measure; the sharp ends wearing and breaking off in proportion to the necessity of its being frequently worked and turned: the quantity, however, becomes proportionately improved.

WHEAT, stored here during three years, was found, on delivery, to have wasted in that period 5 per cent.; the particular loss from year to year was not ascertained, although it is evident that the waste, during the first year of storage, must have been by far the most considerable.

RYE, if kiln-dried, loses very little in measure, and that only from the dust its dryness occasions.

Not kiln-dried has been found to waste, during five years' storage, from 4½ to 5 per cent.

BARLEY, during two years, lost nearly 5 per cent.

OATS, of light quality, lost in one year, and often worked during that period, 7½ per cent.

Another large parcel, of better quality, wasted in three years about 9 per cent.

BEANS, stored during two years, left a deficiency of 5½ per cent. the principal waste of which was certainly, during the first year, by drying and decreasing in bulk; as another parcel of old beans stored here did not waste in five years above 1 per cent.

The expenses of landing are as follow: viz.—for wheat, beans, and rye, if landed from a vessel lying in the stream:—

	Groats.
Lighterage to the quay, per last	0 36
Metage, labourage, landing, cartage, and housing . .	1 4
N. B.—Oats would be 4 groats less.	
Commission (if freight not advanced)	0 18
but, if freight is advanced, it would be double, besides interest, till the advance is covered.	
	1 58 G.

Or at par 6s. sterling.

The charges on re-shipment are the same, except commission, which would only be 18 groats.

The customary warehouse rent on grain is as follows; and you will please to observe, that when grain is stored, the storage is always charged for three months, whether it remain that time or not, after the expiration of which period, the charge is only monthly:—

On beans, peas, or seed	.	28 groats per month.
Wheat or rye		24 ditto
Barley and oats		18 ditto

besides insurance against fire, varying according to locality, from ¼ to ½ per cent. per annum.

Turning and working on the loft, two grotes per last, or about 1½*d.* sterling; of course this charge is more or less frequent, according to the condition of the grain.

Screening, when required, is a separate charge, amounting to 12 groats per last, or about 6½*d.* sterling.

As in Oldenburg grain has not been stored for foreign account, no estimate of charges can be made.

In Elsfleth they are the same as here.

In the neighbouring village alluded to, the expenses would not exceed those noted for this place, except in the rainy season, when the transport from the lighter to the stores could not be effected, in consequence of the want of pavement and the deepness of the roads.

Having thus, to the best of my power, answered the queries you did me the honour to put to me, I have much to regret that it has been impossible for me to ascertain how much of the produce of any particular harvest has been stored at one time.

I have the honour to remain, Sir, your obedient humble servant,

Henry Canning, Esq. H. MACNAMARA.
His Britannic Majesty's Consul General, Hamburg,
&c., &c., &c.

No. VII.—An Account of the Annual Average Price of Wheat, in the City of Bremen, from the Year 1700 to the Year 1826.

YEARS.	Price per Qr.	YEARS.	Price per Qr.	YEARS.	Price per Qr.	YEARS.	Price per Qr.	YEARS.	Price per Qr.
1700	70/10	1726	25/	1752	27/10	1777	29/2	1802	63/4
1701	—	1727	24/2	1753	28/4	1778	31/8	1803	63/4
1702	70/10	1728	23/	1754	28/8	1779	30/	1804	61/8
1703	70/10	1729	22/	1755	30/	1780	29/2	1805	67/6
1704	70/10	1730	22/10	1756	—	1781	28/8	1806	72/6
1705	70/10	1731	23/8	1757	—	1782	33/4	1807	53/4
1706	70/10	1732	23/4	1758	—	1783	35/10	1808	48/4
1707	70/10	1733	22/10	1759	—	1784	35/10	1809	45/10
1708	70/10	1734	23/10	1760	33/8	1785	35/	1810	37/6
1709	46/8	1735	24/6	1761	—	1786	36/8	1811	38/4
1710	33/4	1736	25/4	1762	—	1787	38/4	1812	61/8
1711	30/10	1737	25/10	1763	—	1788	31/8	1813	50/
1712	29/2	1738	27/	1764	—	1789	48/4	1814	48/4
1713	26/8	1739	28/4	1765	—	1790	47/6	1815	45/
1714	25/	1740	29/4	1766	—	1791	34/2	1816	62/6
1715	23/8	1741	28/	1767	—	1792	33/8	1817	80/10
1716	22/10	1742	26/8	1768	—	1793	35/10	1818	63/4
1717	22/6	1743	25/10	1769	—	1794	39/2	1819	48/4
1718	22/8	1744	26/8	1770	36/8	1795	60/10	1820	35/
1719	23/4	1745	27/	1771	38/4	1796	54/2	1821	33/4
1720	—	1746	30/4	1772	40/	1797	36/8	1822	30/
1721	—	1747	28/	1773	38/4	1798	35/	1823	27/6
1722	—	1748	25/6	1774	35/	1799	45/	1824	25/
1723	—	1749	25/6	1775	33/4	1800	69/2	1825	21/8
1724	25/6	1750	26/4	1776	29/2	1801	67/6	1826	—
1725	23/10	1751	25/10	—	—	—	—	—	—
1700 to 1725	Aver. Pr. of 21 yrs. 43/11	1726 to 1751	Aver. Pr. of 26 yrs. 25/8	1752 to 1776	Aver. Pr. of 12 yrs. 33/3	1777 to 1801	Aver. Pr. of 25 yrs. 40/1	1802 to 1825	Aver. Pr. of 24 yrs. 49/4

In testimony of the Original. The Secretary of the Government of the Senate of the Free Hanse Town of Bremen.

Bremen, Aug. 31, 1827. J. BREULS.

No. VIII.—An Account of the Stock of CORN in the Granaries of Bremen, with that of the Exports and Imports, from 1st January 1824, to 1st January 1827.

PART I.

Stock of Grain in the Granaries of Bremen.

	1st of January, 1824. Quarters.	1st of January, 1825. Quarters.
Rape	1,240	2,900
Wheat	16,960	21,360
Rye	35,710	38,260
Pease	160	200
Barley	4,820	10,930
Malt	270	300
Beans	21,610	19,570
Oats	33,840	26,980
Total Quarters	114,610	120,500

IMPORTED 1824.

	From the Upper Weser. Quarters.	From the Lower Weser and the Sea. Quarters.
Rape	——	14,510
Wheat	5,390	28,130
Rye	350	14,380
Pease	——	120
Barley	24,970	7,840
Malt	——	1,710
Beans	——	8.090
Oats	——	45,570
Total Quarters		150,060

EXPORTED 1824.

	To the Upper Weser. Quarters.	To the Lower Weser. Quarters.
Rape	3,890	4,050
Wheat	100	12,700
Rye	——	920
Pease	——	——
Barley	50	7,630
Malt	——	——
Beans	230	6,060
Oats	1,210	23,120
Total Quarters		59,960

Stock of Grain in the Granaries of Bremen.

	1st of January, 1825. Quarters.	1st of January, 1826. Quarters.
Rape	2,900	4,910
Wheat	21,360	26,640
Rye	38,260	47,810
Pease	200	490
Barley	10,930	9,710
Malt	300	500
Beans	19,570	13,520
Oats	26,980	25,480
Total Quarters	120,500	129,060

IMPORTED 1825.

	From the Upper Weser. Quarters.	From the Lower Weser and the Sea. Quarters.	
Rape	—	6,120	
Wheat	16,200	13,240	
Rye	16,610	14,560	
Pease	1,650	170	
Barley	30,650	10,130	
Malt	—	1,520	
Beans	120	4,600	
Oats	3,260	27,490	
Total Quarters			146,320

EXPORTED 1825.

	To the Upper Weser. Quarters.	To the Lower Weser Quarters.	
Rape	760	1270	
Wheat	—	12,130	
Rye	—	7,420	
Pease	—	1,290	
Barley	60	26,980	
Malt	—	—	
Beans	50	8,730	
Oats	110	7,650	
Total Quarters			66,450

Stock of Grain in the Granaries of Bremen.

	1st of January, 1826. Quarters.	1st of January, 1827. Quarters.
Rape	4,910	3,740
Wheat	26,640	26,950
Rye	47,810	36,090
Pease	490	400
Barley	9,710	5,950
Malt	500	—
Beans	13,520	1,120
Oats	25,480	6,410
Total Quarters	129,060	80,660

IMPORTED 1826.

	From the Upper Weser. Quarters.	From the Lower Weser and the Sea. Quarters.
Rape	——	4,290
Wheat	17,080	4,260
Rye	17,040	2,570
Pease	1,470	70
Barley	10,560	4,270
Malt	——	240
Beans	360	4,350
Oats	20,640	24,720
Total Quarters		111,920

EXPORTED 1826.

	To the Upper Weser. Quarters.	To the Lower Weser and the Sea. Quarters.
Rape	2,080	1,220
Wheat	——	7,730
Rye	——	13,400
Pease	——	1,530
Barley	——	10,430
Malt	——	90
Beans	260	14,790
Oats	110	39,280
Total Quarters		90,920

Bremen, 1 January, 1827. *Siegfried Baerentz*, Broker.

I, the undersigned, do hereby certify, That the average price of grain was, in the market of Bremen, in the year 1826, from the 1st of January till the 30th of June, Wheat, 21/10; Rye, 15; Barley, 12/; and Oats, 7/6; and from the 1st of July till the 31st of December of the same year, for Wheat, 29/1; Rye, 20/6; Barley, 18/9; and Oats, 15/4; per quarter, Winchester measure.

Bremen, 2d September, 1827. *Siegfried Baerentz*, Sworn Broker.

No. IX.—An Account of the Quantities of WHEAT, RYE, and BARLEY, consumed in the City of Bremen, from the Year 1814 to the Year 1826 inclusive.

YEARS.	WHEAT. Quarters.	RYE. Quarters.	BARLEY. Quarters.
1814	12,761	19,273	10,281
1815	10,796	17,942	11,289
1816	10,250	18,365	11,491
1817	8,578	21,954	9,949
1818	7,863	21,712	9,132
1819	10,775	20,664	8,969
1820	11,803	20,190	9,465
1821	11,723	20,260	11,289
1822	11,047	21,004	13,054
1823	11,169	20,946	12,676
1824	10,177	20,835	13,003
1825	11,340	20,402	13,054
1826	11,753	20,280	13,215

Bremen, August 31st, 1827.

In testimony of its authenticity,
The Government Secretary of the Senate of the free Hanse Town of Bremen.

J. Breuls.

No. X.—Communications in reply to Questions submitted to J. H. VON THUENEN, translated from the German, with the Money and Measures reduced to the English Denominations.

PART I.

1.—How often is the land ploughed in Mecklenburg?

It is to be remarked, that in Mecklenburg the hacke * is usually applied, instead of the plough, which latter instrument is but seldom used, and thus the tearing up of the soil is not called ploughing, but hackeing.

In the fallow, the land is hacked four times, namely, in autumn, in June, in July, and the fourth time in September or October. The first hackeing is called the stubble furrow; the second, the fallow furrow; the third, the turn furrow; and the fourth, the seed furrow.

For barley, which follows after the winter corn, the ground is furrowed three times; viz. in autumn, the winter furrow; in April, the turn furrow, and in May, the seed furrow. For the oats, which follow after barley, the land is ploughed twice, first in autumn, called the turn furrow, and the second time in May, called the seed furrow. Pease, when sown in the first course after the winter corn, are furrowed twice; when sown in the second course after the winter corn, three times.

* An implement resembling the binnot of the Netherlands; it is merely a broad coulter, somewhat curved at the bottom.

Beans are not much cultivated, the soil qualified for their growth not being abundant in the country. Rape requires five courses, or one time more than wheat and rye.

2.—How often is the land harrowed?

The harrow is applied each time after the tearing up of the soil with the hacke. A good soil is usually harrowed first with the iron-tined harrow, and afterwards with a wooden-tined harrow. With the latter, the land is ordinarily cross-harrowed, that is to say, in an oblique way, on patches of ground of about two rods in width.

3.—How often is the land rolled?

The rollers are particularly applied in the turn farrow, (April,) for crushing the clods. Some agriculturists use also the roller after the sowing, for the purpose of making the soft soil either more solid, or to crush the clods on the strong lands. Others prefer to have the clods that are found in the seed furrows broken by the hands of the labourers. On the lands which are neither too loose, nor liable to form into clods, the roller is not generally applied.

4.—How many square rods of land does a labourer plough on the average in one day?

Formerly the hackeing with oxen was general, two on one hacked; they worked but half a day, and each hacke required four oxen; but since the great fall in the prices of corn, many estates have substituted horses instead of oxen, by which the consumption of corn, as well as the produce of wool, have much increased.

On the estate of Tellow, one man ploughed, during the period from 1810 to 1815, daily, on the average:—

[a] In the fallow;

	Acres.
Autumn, (stubble furrow)	92/100
June, (fallow furrow)	1·39/100
July, (turn furrow)	1·38/100
September or October, (seed furrow)	1·19/100

[b] In the first course for sowing barley;

Autumn, (stubble furrow)	1·12/100
April, (turn furrow)	1·43/100
May, (seed furrow)	1·46/100

[c] In the after course for sowing oats;

Autumn, turn furrow)	1·02/100
May, (seed furrow)	1·46/100

On the same estate, the furrows are made from nine to eleven inches wide; but in most of the other estates, particularly such as have a sandy soil, the furrows are made still wider, which increases, in some degree, the quantity of labour,

5.—How many days' work are required for one labourer, for thrashing and cleansing one hundred Berlin scheffel (147·41/100 imperial bushels) of the different kinds of grain?

At Tellow, the thrashing and cleaning has required, during the period of five years, from 1810 to 1815;

43·7/100 days on 147·41/100 imperial bushels of	Wheat.
39·5/10	Rye.
21·1/10	Barley.
13·2/10	Oats.

6.—How many square rods (acres) of the different crops can a labourer mow and bind together in one day?

At Tellow, a labourer has mown in the above-mentioned period:—

Wheat	1·22/100 acres a day.
Rye	1·78/100
Barley	1·79/100
Oats	1·99/100

However, the space of land which can be mown in a day by one labourer, depends very much on the strength of the corn itself, and the expenses of mowing ought, on this ground, to be calculated rather in the proportion of the quantity of produce, than the extent of the surface.

The mowing of a surface of land, which produced 147,41/100 bushels of grain has required at Tellow,

4, 20/100 men a day, for	Wheat.
3, 92/100	Rye.
3, 08/100	Barley.
2, 24/100	Oats.

The binding is usually done by women, the shocking is done by men.

During the said period, the binding and shocking was done at Tellow by one person, in the following proportions:—

Wheat	1, 46/100 acres a day.
Rye	1, 40/100
Barley	1, 79/100
Oats	2, 56/100

The expense of binding and shocking depends, like that of mowing, rather on the quantity of the produce than on that of the land.

The rye is usually bound together behind the scythe, the female binder following immediately after the mower, a method which is not practised with the other kinds of grain; and from its delaying much the operation of binding, accounts for the quantity of bound rye being smaller than that of wheat, which otherwise would have been the reverse. On some estates, this method of binding the rye, close behind the scythe, has already been done away with.

Of clover, about 1, 23/100 acres can be mown by one labourer, in a day. On meadow land, a labourer mows according to the bulk of

the grass, from 0, 96/100 to 1, 45/100 acres a day, sometimes even 1, 60/100 acres.

7.—Has the value of land increased or decreased within the last ten years, and in what proportion?

Within the last ten years, the value of land has fallen throughout the country. This depression amounts on estates of a better quality, from 15 to 20 per cent.; and on those of less fertile soils, from 30 to 40 per cent. upon the former purchase price. Their present value is still maintained by the hope, that corn will again rise; for during the last seven years, estates have not yielded the interest on the first cost price. But should this hope prove to be illusive, their value will of course sink still lower. The low rate of interest from four to four and a half per cent. per annum, and especially the operations of the Credit-Verein (Credit Association) have also essentially contributed to maintain the present value of estates.

8.—What is the present value of 100,000 square Mecklenburg roods (536, 35/100 acres) of land of medium soil, with suitable buildings and sufficient wood belonging to it?

The estate of W——, from the quality of its soil and other circumstances, was sold two years ago for 82,000 dollars, new ⅓ pieces, (13,960*l.* sterling). Its extent being 1,834 acres, the value of 536, 1/3 acres, was, therefore, 4,082*l.* 9*s.* sterling.

The estate of L——, containing, with other estates annexed to it, an extent of 5,642 acres, and whose soil is of the poorest quality in Mecklenburg, has been sold this year by public auction for 6,468*l.* sterling. The price for 536, 1/3 acres, would thus be 614*l.* 17*s.* sterling. This estate contains also forests of considerable extent, and the last proprietor paid for it 10,550*l.* sterling, about twelve years ago.

The price at which the last estate has lately been sold shows how great the depreciation of the poorer lands has been in Mecklenburg, and how, further, a decline in the prices of corn, or, perhaps, their merely remaining stationary, will reduce to nothing the value of poor lands, especially if they are deprived of wood, will suspend their cultivation, and compel the inhabitants to remove to other spots.

However, the value of the medium soil, under which denomination I understand the average value of the whole extent of soil of Mecklenburg, cannot be ascertained from the prices paid for lands of the best and poorest description, as lands of these two qualities are not found in equal proportions, and, besides, the fields of the peasantry ought not to be omitted in the drawing up of a general average, the value of them being less than those of the estates, although the quality of the land may be equal.

From an estimate which I have made, and for which purpose I have consulted the opinions of several of our most experienced agriculturists,

the present average price of a hufe of land (which varies from 1,020*l.* to 2,720*l.* sterling, according to the quantity of the soil) throughout the country, lies between 1,530*l.* and 1,702*l.* sterling.

According to a statement in the Government Almanack, for the year 1826, the total number of estates in the Grand Duchy of Mecklenburg Schwerin, of knightly, monastic, or exchequer tenure—

contain . .	3,739 79/100 hufen, or	1,714,131 acres.
the domains . .	2,676 35/10 . .	1,206,822
Comprising together for the total number of estates	6,416 14/100 hufen, or	2,920,953 acres.

The hufe of land contains thus an average extent of 455, 25/100 acres.* If then the average value of one hufe is computed to be from 1,530*l.* to 1,702*l.* sterling, the average value of 536, 35/100 acres, will be between 1,802*l.* and 2,005*l.* sterling.

9.—What is the amount of taxes paid on an extent of 100,000 roods, or 536, 36/100 acres of land to government, as well as those for churches, schools, poor, repair of roads, bridges, ditches, &c. &c.

The taxes paid to the government, are estimated to be 11*l.* 18*s.* 4*d.* on each hufe. The extent of a hufe varies very much according to the diversity of the soil; the average area, however is, as already shown, 455, 25 acres. The average amount of the government taxes on an extent of 536, 35 acres of land, would thus be 13*l.* 19*s.* 10*d.* sterling. The local taxes are so various on the different estates, that I cannot give any fixed estimate of them.

On the estate of Tellow, the annual average amount of the local taxes and expenses, have been during the period of 1810/15, as follows:—

	£.	*s.*	*d.*
1.—Church rates, clergymen, repairing the minister's house, and conveyance of materials	9	18	2
2.—Insurance of the buildings, implements and live stock against fire, also insurance of the crops in the fields against hail	17	1	9
3.—Repair of roads, bridges, ditches and canals . . .	3	8	6
4.—Support of the poor	7	13	5
5.—The school tax amounts, according to the present regulations, to about	7	13	2
Total . . . . £	45	15	0
The estate of Tellow having an extent of 1,152 acres the proportionate amount of the local taxes, &c. on 536 acres would be	21	6	5
Taxes to government	13	19	10
Making together . . . . £	35	6	3

* The commons belonging to the towns, and which are cultivated by the citizens themselves, are not comprised among the number of hufen here mentioned.

10.—Are the domains let to farmers in better or worse cultivation than the estates belonging to private proprietors?

The cultivation of the domains is generally inferior to that of the estates cultivated by the proprietors themselves; the difference, however, is not so great as might be expected, considering the diversity of circumstances which affect both kinds of property.

11.—Are the domanial estates of more or less extent than those of knightly tenure?

There is no characteristic difference between these two kinds of estates as to their extent.

12.—What is the average superficial extent of the estates?

The extent of the different estates is very unequal; they vary from 320 to 2,850 acres; such estates are managed from one farming establishment (*Hof*). There are, however, others of a still larger extent, but then it arises from the annexation of smaller estates to the principal one.

13.—For what period are leases generally granted?

The estates are usually farmed out from twelve to twenty-one years. Sometimes leases are granted only for six years. Sometimes they are extended as long as twenty-eight years, but these periods are only exceptions from the usual practice.

The leases of the domains are generally granted for a longer period than those of the seignorial estates.

14.—Are the live stock and implements the property of the farmers, or of the proprietor?

The live stock and the implements comprehended under the denomination of the "Inventarium," is generally the property of the farmer.

15.—Do the smaller farms pay proportionately a higher rent than the larger ones?

If we divide the estates with regard to their extent into five classes; namely—

First Class, from - - -	320 to 540 acres,
Second d° - - -	540 to 1,080 d°,
Third d° - - - -	1,080 to 1,620 d°,
Fourth d° - - - -	1,620 to 2,160 d°,
Fifth d° - - - -	2,160 and upwards—

we shall discover no sensible difference in the rent paid proportionately for the estates of the first four classes. Those of the fifth class, or the very large estates, yield, however, proportionately a lower rent. But the value of the estates of the first and second class, or the smaller ones, is decidedly higher than that of the other classes.

The rent of the small farms of the peasantry is exceedingly low, and amounts scarcely to half the rent paid in proportion on the estates by the farmers. In the latter years, the commons of many villages have

been inclosed, and the land divided; but as the cottages and tenements were for the most part not removed from the villages, the cultivation of the distant allotments of land is very troublesome as well as expensive.

Farms from one to two hundred acres of land, with farm buildings in their centre, such as are found in the west of Germany, and which yield so abundant crops, are very unusual in Mecklenburg.

16.— What is generally the average rent of 536 $\frac{44}{100}$ acres of land?

The area of land forming the standard extent for fixing the amount of the rent, comprehends thirty-two acres and seven poles, and is called a "Last of Land." The rent of a last of land of the finest soil, that has an abundant supply of hay and sufficient wood, rises as high as 19*l.* 12*s.* sterling.

For a soil of a lower description, and with a less abundant produce of hay, the rent of a last of land declines in the better districts of Mecklenburg to 17*l.* to 13*l.* 13*s.*, and even as low as 10*l.* 4*s.* In the sandy districts of the southern part of the country, the rent falls to 5*l.* 2*s.* and even to 3*l.* 8*s.* a last.

The land cultivated by the peasantry pays at the utmost only half as much on a soil of the same description as the larger estates.

Taking together the rich and the poor districts of Mecklenburg, and adding thereto the lands that are cultivated by the peasantry, the average rent of a last (32 acres 7 poles) for the whole country, will be 10*l.* 4*s.* 3*d.* sterling.

But in order to answer fully the question, what is generally the average rent of 536$\frac{44}{100}$ acres of land, it will be necessary to discover the proportion which the superficies of the arable land bears to that of the whole estate. In the better districts of Mecklenburg, the arable land forms seventy-five per cent. on the whole extent; in the sandy districts, where there are still several uncultivated parts, which serve only as pastures, besides many lakes, the arable land forms about sixty parts of the whole superficies; I estimate therefore the arable land to be about two-thirds of the whole superficies of the soil.

In estimating the value of land in Mecklenburg, it is usual, and the same method is applied in this place, to take only the arable land as a measure of rent. The meadows are considered as an addition, whose greater or smaller extent raises or diminishes the rent of the arable land. In like manner, the wood necessary to an estate is considered as a requisite, and is not brought into account at the estimation of the rent. The produce of the meadows, and the woods necessary for consumption, is therefore not comprehended in the above-mentioned rent.

If then the arable land of the whole country forms two-third parts of its superficies, consequently 357,57 acres out of each 536,35, and the average rent of a last of arable land, amounts to 10*l.* 4*s.* 3*d.* sterling, it follows that a superficies of 536,35 acres will average a rent of 113*l.* 10*s.* 7*d.* sterling.

In farming out his lands, the proprietor generally bears the following expenses:—

—The government taxes.

2.—The expenses of constructing new buildings.

3.—The principal repairs of the buildings.

4.—The insurance of the houses against fire.

5.—The salary to the physician who attends the day-labourers when they are sick.

6.—The salary, or honorarium, to the justiciary (a lawyer exercising the rights of the lord of the manor.)

The average amount of these expenses on 536,35/100 acres, I have calculated to be	£28	1	8
The rent of 536,31 acres amount to	113	10	7
Remain net to the proprietor .	£85	8	11

17.—Is there an establishment in Mecklenburg where the debts or mortgages on the estates are enregistered?

There exists a Board of Hypothecation, where each estate has its hypothecation book deposited. In this book all the mortgages with which the estate is encumbered, are inscribed. This system has the effect of giving a full and clear view of the state of incumbrances on Mecklenburg estates. Besides this institution, a Credit-Verein (Credit Association) has been formed, to which a considerable part of the proprietors of the estates in Mecklenburg belong. The estates which thus belong to this association, are mutual guarantees for half the amount of the taxed valuation, when that sum is borrowed upon their security.

The directors of the association issue transferable bonds bearing 4% interest, but the landholders pay one-half per cent. more or 4½, from which the expense of administration is defrayed, and the remainder is applied towards forming a reserve fund.

Owing to the low prices of grain, the actual value of the estates is in general lower than the *taxed* valuation of the Credit-Verein; but as the association borrows only half the amount on the *taxed* valuation, and that valuation being, besides, founded on a basis that excludes all arbitrary influence, the effect has been, that even in the late distressing times, not one single estate was put under sequestration for non-payment of the interest due on them. The Credit-Verein has very materially contributed in maintaining a low rate of interest, and in preventing a still further decline in the value of the estates, and thereby to the preservation of many landholders.

18.—Were the low prices of corn attended with much distress and misery?

The low prices of corn have certainly caused much sorrow and suffering throughout the country, and brought many a family to ruin and despair.

From a statement in the Schwerin evening paper, it appears, that from the year 1787 to the year 1820, the average price of 1,103/1,000 bushels of wheat in the Schwerin market has been 5*s.* 3-3/16*d.* sterling.

According to an account extracted from the registers of the estate A, the wheat produced on that estate has been sold during the six years from 1820 to the end of 1825, at the average price of 2*s.* 4, 1/16*d.* the 1, 103/1,000 bushel.

The average price of wheat has thus fallen in the proportion of 63, 3/16 to 28, 1/16, or 55½ per cent.

Such an unexampled and sudden sinking of prices must have necessarily been spreading misery amongst many families; but when it is remembered, that high corn prices prevailed the thirty previous years, and that the price paid for the estates, as well as the leases contracted, previous to the year 1820, were all regulated and entered into under the opinion that those prices would still continue; and when we add, that the taxes, which were doubled during the war, have not since been reduced, whereas the price of many articles which are indispensable to the landholder or farmer, and also the wages of labour of the mechanics, have either been little or not at all reduced, it was certainly to be expected, that the sinking of the corn prices, below even half their former standard, would not only spread ruin over a whole class of inhabitants, but would tend to lay waste the country, and to dissolve all the bonds of society.

That such a state of things has not arrived, that the late times have not been attended with such a baneful effect upon the country, is chiefly to be attributed to the following causes:—

First—When the prices of corn began to fall, the arable land of the greater part of Mecklenburg had already been manured with marl, by which operation the produce of corn has been increased in an extraordinary degree.

Secondly—The harvests of the years 1821, 1822, and 1823, were so abundant, that history scarcely records the like for a single year, much less for a series of three years. The increased productiveness of the soil by the application of marl, combined with the fertility of the seasons, yielded such rich harvests, that the cost of production was much less than in former years.

Thirdly—The increased produce of wool was, from the high prices of that article, so great, that although the price of corn was below the cost of production, the estates yielded an income not inconsiderable from the flocks of sheep.

Fourthly—The enormous high prices which the agricultural classes obtained for their corn, during the years 1816, 1817, and 1818, had enabled the greater part of them to save a fund sufficient to balance for some years the disproportion which soon after made its appearance between the price of corn, and the interest or rent to be paid from the land.

Notwithstanding these circumstances, when, in the year 1826, the gloom rose to its utmost height, and in addition to the most ruinous prices of corn, those of wool declined to half their former standard, and a frightful crisis threatened to approach, a sudden and considerable rise in the price of corn gave a check to the general distress, and revived the hopes of the agricultural classes.

But although Mecklenburg has now happily overcome that period, at the sacrifice, it is true, of a great part of the wealth of its landholders, and without retrograding in the cultivation of its soil, it must not be inferred that the country would be able to contend a second time with a similar crisis; on the contrary, the continuance of the low prices of corn, such as they were from the year 1820 till 1826, would be pregnant with the most mischievous consequences, the favourable circumstance which hitherto operated in checking them, having either disappeared already, or will return no more, for—

Firstly—The effect which the marl produced on the soil is now decreasing, and the crops will, therefore, be less abundant than they have hitherto been. Those estates which are managed with the greatest possible care, already present a sensible diminution in the effect of the marl; and it is much to be apprehended, that this decrease will show itself in an alarming degree on estates where the cultivation of corn had been too much extended, and a second marling, as experience has taught us, will be of no avail.

Secondly—It is scarcely possible, much less probable, that a series of such fruitful years should soon return again.

Thirdly—It is very probable, that the constantly increasing number of fine-wooled sheep will depreciate the price of fine wool; but the market price of this article, being still considerably higher than the cost of production, the depreciation in its value will consequently not be attended with a decrease of produce, and increase will, on this account, not be temporary, but probably continuous.

Fourthly—The means with which the losses sustained during the first period have been made good, are, with the greater part of our agriculturists, already exhausted.

19.—What may be considered, at present, as the cost of production of wheat in the Duchy of Mecklenburg?

If by the term, "cost of production" is meant, that rate of prices at which the agriculturist, at the present value of the estates, or the rent paid on them, might just be able to subsist, so that, on the one hand, the price itself affords no encouragement for improving the soil, and on the other hand, no necessity for retrograding from the present state of cultivation, then I have come, after a careful examination of all the circumstances, to the conclusion, that in the present state of Mecklenburg, the price at which wheat can be produced in that country, lies between 44*s.* and one dollar, new 2/3 pieces for a Rostock scheffel

(22*s.* 7½*d.* to 24*s.* 8½*d.* sterling the quarter,) or about 25*s.* the quarter, in British money.

The wheat which is sent to market by the farmer is not sufficiently clean for shipping, and requires screening. This operation, it is calculated, occasions a loss of four per cent. which raises the cost price of wheat to 26*s.*

An eminent merchant of Rostock has furnished me with the following detail of the shipping expenses on wheat from Rostock to London:—

	per quarter. *s.*	*d.*
Loading and Export Dues in Rostock	1	8
Freight and Commission	5	0
Sound Duty and Insurance	1	0
Metage and Lighterage	1	3
Fees of Entrance (beside the Import Duty)	1	10
Re-metage and Porterage	0	7
Factorage	1	0
Petty Charges, City Dues, &c.	0	4
Commission to the Corn Merchant, 3°° on the amount of sale, making per quarter	1	8
Total charge per quarter	14	4

In case no buyer should immediately come forward to take the wheat from the ship, it must be stored in warehouses, which causes additional charges. Besides, the Mecklenburg wheat is inferior in quality to the English, and yields on an average five shillings less the quarter. If, then, the import duty on wheat in Great Britain were *fixed* at 20*s.* the quarter, the Mecklenburg wheat, in the London market, would come to 60*s.* 4*d.*; namely:—

	s.	*d.*	
Cost Price	26	0	per quarter.
Shipping Charges, &c.	14	4	
Duty	20	0	
	60	4	

Which price the Mecklenburg wheat could only be sold for, when English wheat would sell at 65*s.* the quarter at least.

The cost price, however, varies much in years of more or less abundance; and although the price of wheat fit for shipping is, on the average, 26*s.* per quarter on the spot, yet a rich harvest might lower its cost to 21*s.*, while an indifferent crop would raise the cost price to 31*s.* the quarter.

It is thus obvious, that, after a very rich harvest, Mecklenburg would only be able to send its corn to England when English wheat would sell at 60*s.* per quarter. With a lower price than this, the importation from Mecklenburg must cease, notwithstanding an abundant crop, if the import duty were to be even permanently fixed at 20*s.* the quarter.

There is probably no country in Europe which could send its wheat to England at a cheaper price than Mecklenburg. It derives, in this respect, many advantages from its geographical position on the Baltic and the Elbe, by either of which channels it is not very distant from England. It is benefited by its constitution, and by its taxes being moderate, when compared with those of some other countries; by the activity and sobriety of its labourers; and, finally, by its soil being in a higher state of cultivation than that of the rest of the eastern portion of Europe.

Even after a rich harvest, and at a price of 60*s.* the quarter, with a duty of 20*s.*, the whole importation of wheat into England would be but inconsiderable, for only a very small part of the continent of Europe can afford its corn to England at the same price as will indemnify Mecklenburg in doing so.

With a somewhat considerable demand in England, such as would render necessary a supply from those interior provinces of Poland which are distant from the sea and from navigable rivers, the price of wheat must of course rise considerably, and the duties must be lowered, in order to render the importation from those countries into England any ways profitable to them.

From a register of the price of rye kept in the church book of an estate in Mecklenburg Strelitz, it appears, that, from the year 1760 to the year 1790, the average price of a Berlin scheffel of rye was 1 dollar 3 gr. and 6 pence Prussian currency, or 31½ shilling in new 2-3 pieces the Rostock scheffel (16*s.* 2½*d.* sterling the quarter).

I could obtain no document to rely upon as to the price of wheat for the same period; the average price of wheat may, however, be inferred, in some degree, from the proportion that exists between the value of that grain and rye. During the period from the year 1787 to 1820, the price of wheat in Mecklenburg was 43 per cent. higher than that of rye; its nourishing capability is estimated to be 33 per cent. greater. The average price of rye having been 16*s.* 2½*d.* the quarter, it follows that the average price of wheat must have been 23*s.* 2*d.*, according to their usual relative value; and 21*s.* 6¾*d.*, according to the proportion of their nourishing qualities.

During thirty years, from 1760 to 1790, the average price of wheat in Berlin was 27*s.* 5½*d.* the quarter. It ought particularly to be kept in view, that during this period England had little or no influence upon the corn prices on the continent; the abovementioned average price was therefore the result of the internal relations of the continent.

Considering, that, on the one hand, the cost of producing corn is much increased by the increasé of taxation, and, on the other hand, the great discoveries and improvements that have been made in arts and manufactures, and the progress made in trade and manufactures (which have derived their chief encouragement from the low prices of corn, and

the consequent low wages of labour), by which the capacity of the nation to pay a remunerating price for its corn have been much augmented, it is not at all likely that the *natural* price of the continent, if the influence of England upon the prices of corn was henceforward entirely to cease with us, would be now constantly lower than it had been during a period of thirty years, from 1760 to 1790.

This may, however, continue some years; for the hope that the admission of corn into England may again be permitted, induces the landholders to produce a quantity of corn greater than can be consumed on the continent; while, at the same time, the manufacturers hesitate at embarking large capitals in their undertakings, from the apprehension that an alteration in the British corn laws might considerably diminish the effect of the enormous difference in the corn prices, which at present exists between England and the continent of Europe, and which would make it impossible for them to enter into competition with the British manufacturers.

Tellow, Oct. 4th, 1827. (Signed) J. H. VON THUNEN.

PART II.

Answers to Questions relative to the Estate of Tellow.

1.—What is the number of families that live on the estate of Tellow, and of how many persons are they composed?

There are living on the estate, besides that of the proprietor, nineteen families, namely,—

Thirteen Day-Labourers,
One Shepherd,
One Cow-Herd,
One Schoolmaster,
One Watchman,
One Tailor,
One Weaver.

At the mansion and farming, five stable-men and six female servants are kept. The total number of souls living on the estate is 128, amongst whom are 43 children below fourteen years of age.

According to a census taken in the year 1819, the population of the united parishes of Belitz and Thurkow (in which the estate of Tellow is comprehended) amounts to 2,272 souls.

The superficial extent of both parishes is 22,376 acres, or 1,648 German geographical square miles (being 34,989/1000 English square miles). The population on each English square mile amounts, therefore, to somewhat less than sixty-five souls (64,914/1000), or nearly one to ten acres.

The soil of both parishes is of a quality of what is considered the better description in Mecklenburg, and is, with regard to its cultivation, at least not behind any other part of the dukedom.

2.—Do all these agricultural families work for the account of the proprietor?

The tailor and the weaver contribute their services to agricultural labour only during the hay and corn harvest; but all the other families are in the service of the proprietor, and are exclusively occupied with agricultural pursuits.

3.—Are you obliged to have the assistance, during the summer, and particularly in the harvest time, of extra labourers not living on the estate?

Accessory labourers are only engaged during the harvest, in case the corn is much laid or beaten down; sometimes they are also employed for cutting turf. The average time of labour on both kinds of work, for two men, may be estimated to be four weeks.

4.—What is the amount of wages paid to the extra labourers during harvest?

The wages generally paid to them, during harvest, is 8½*d.* a day, with board, or from 1*s.* 1½*d.* to 1*s.* 3*d.* without board.

5.—How are the labourers employed during winter?

When the marling, and also the mudding and manuring the meadows with earth have been executed, the thrashing of corn remains as the chief occupation of the male labourers during the winter. It is on this account that the introduction of the thrashing machines will not succeed in Mecklenburg. Were the thrashing done by machinery, the labourers would be kept unemployed during the winter, and the proprietor be still obliged to maintain them.

The female part of the labourers can seldom be provided with work during the winter; they employ their time in spinning flax; but in case the crop of this article has failed, they remain totally unemployed during part of the winter.

The chief employment of the stable-men in winter is the conveyance of grain to the markets.

6.—What is the amount of wages paid to the labourers, beside their emoluments in fuel, garden ground, cottage rent, and food for one cow?

The men are paid, during summer, seven-pence a day, and sixpence

in winter; the women are paid 3½*d.* a day throughout the year. Much labour, such as turf-cutting, the cleaning of the ditches, &c. &c. is done by agreement, and the labourer earns then from 8½*d.* to 10½*d.* a day.

For thrashing, they are paid with the sixteenth part of the thrashed grain; and, when the corn prices are not all too low, this mode of payment yields them much more than their ordinary wages.

For their cottages and all other emoluments, they pay 1*l.* 9*s.* 6*d.* a year, an amount which repays the value of a part only of what they receive for it. The wages of labour are only so low as has been stated, because the labourer is allowed many advantages for little or nothing; on this ground, the cost of labour cannot be determined by the wages paid in money alone.

I add here, therefore, a copy of calculations, which I made in the year 1813, respecting the cost of labour. The average price of rye was then 24*s.* 9*d.* the quarter, and this price was laid down as the basis of my estimate.

Estimate of the Annual Cost of a Labourer and his Family to the Estate.

	£.	s.	d.
1.—Interest on the capital laid out for erecting his cottage, repairs, and insurance in the country fire-offices	1	9	9
2.—Garden ground, $25\frac{72}{100}$ square poles, a $3\frac{1}{16}$	0	8	6
3.—Potatoe grounds in the fields, $34\frac{28}{100}$ d° d°	0	8	6
4.—Flax ground, $12\frac{86}{100}$ d° d°	0	3	2
5.—Fuel, 2 fudder of wood	0	12	4
6.—Turf	0	8	8
7.—Pasture for one cow and heifer	0	19	10
8.— —— for hogs and geese	0	1	8
9.—Five and a half bushels of rye, at the price of 2*s.* 9*d.* on the estate, (that of Rostock being 3*s.* 1*d.*)	0	15	0
10.—Conveyance of the labourers to and from other villages, at the occasion of marriages, christenings, &c.	0	4	0
11.—Expense of the harvest festivities, per family	0	3	5
12.—Brandy during harvest, and at some other occasions, per family	0	3	0
13.—Fees, &c. to the physician and apothecary, per family	0	10	3
14.—Sick diet, per family	0	3	5
15.—Assistance to the old and poor	0	7	8
16.—The average earnings of a labourer amount annually, according to a separate estimate, in which the wages for thrashing has been calculated after the money price of corn	9	17	2
17.—Average labour of the labourer's wife, 168 days a $3\frac{6}{8}$ a day	2	7	8
	19	4	0

				£.	s.	d.
Annual Cost brought forward				19	4	0
Against which the Labourer pays—						
1.—Rent for his cottage			1 9 6			
2.—He furnishes besides, annually, two geese valued at 1*s.* 8*d.* each			0 3 4			
3.—His wife spins gratis, eight pounds of flax, of an inferior quality, at 2½*d.* the pound			0 1 8			
Deduct				1	14	6
The cost of a labourer and his family, are thus annually to the estate				17	9	6
The labourer works annually for the proprietor, on the average				276		days.
(About twelve days in the year, he works for himself, in cutting turf, making hay, and cutting wood for fuel.)						
His wife works annually 168 days, and in calculating three days work of the woman to be equal to two days of a man, her 168 days work would be equal to				112	—	
Making together				388		days.

Three hundred and eighty-eight days of labour are thus equivalent to the cost expended for maintaining a labourer's family. Or, 388 work days, cost 17*l.* 9*s.* 6*d.* sterling, making $10\frac{8}{100}$*d.* each day's work, on the average throughout the year.

But the value of a day's labour being less in winter than in summer, and higher in harvest than in ploughing season, the measure of expense caused by a labouring family ought, therefore, not to be taken from the number of days they work, but from the quantity of labour which they perform.

From an analysis, in which regard has been taken to the more or less exertion caused by the nature of the labour itself, to the quantity of labour done, as well as to the degree of its efficiency or importance, I find that the daily cost of labour of an ordinary labourer is—

	s.	d.
[a] During harvest	1	4
[b] — haymaking	1	1¼
[c] In all other kinds of husbandry,—		
[1] If done by hire or under inspection—		
In Summer	1	0
— Autumn	0	9
— Winter	0	8
[2] In the ordinary way without inspection,—		
In Summer	0	9
— Autumn	0	6¾
— Winter	0	6

FURTHER NOTICES ON THE ESTATE OF TELLOW.

The estate contains a superficies of 1,152 acres, consisting of,—

Tillage land	.	804½ acres.
Meadows	.	129 —
Woods	.	145 —
Turf moor, or bog land	.	16 —

Roads, cottages and other buildings, garden grounds, &c. forming the rest.

N. B.—The arable land consisted formerly of 880 acres; but the sandy soil has since been planted with firs, which reduced the extent of tillage land to 804½ acres.

The soil is cultivated in six courses as follows:—

1st Course Fallow.
2d — Wheat, rape, and rye.
3d — Barley, oats, pease, potatoes, and flax.
4th — Two-fifths oats, three-fifths pastured.
5th — Pasture and clover.
6th — Pasture.

The method of the fourth course, not being entirely of grain, is a deviation from the usual method of cultivation in Mecklenburg.

During the ten years from 1810 to 1820, the average production of the soil was as follows:—

	Acres.		Qrs.	bus.
Wheat, tilled ground	71	Produce	285	5
Rye —	63	—	207	3
Barley —	51	—	181	3
Oats, filled measure	118	—	420	3
Barley and oats mixed	2¼	—	8	7
Pease —	21½	—	41	4
Vetches —	3	—	4	1
Beans —	½	—	0	7
Buck-wheat	3	—	3	7
Rape —	1¾	—	5	6

The produce of the chief kinds of grain was accordingly,—

Wheat on one acre	30,,77	Imperial bushels.
Rye —	26,,33	—
Barley —	28,,45	—
Oats —	33,,82	—
Pease —	15,,44	—

However, from the production of this single estate, no conclusion can be drawn as to the average produce of the soil of the whole country. What that average produce might be, it is impossible for me to form an estimate, as I am not in possession of the data required for such a calculation; but there is no doubt, that the general average would be much less than the average produce of the estate of Tellow.

The live stock of the estate consists of,—

24 Horses,
2 Colts,
33 Cows belonging to the proprietor,
23 — to the labourers and journeymen artisans.
1 Bull,
1,100 Sheep, during winter,
1,590 Do. including the lambs, during summer.

The average produce of the 129 acres of meadow, from the year 1810 to 1820, was 150 four-horse waggon loads, weighing each 31,000 pounds of hay; but since half of the meadows have been manured with a compost of mould and dung, each alternate year, their average produce of hay in the last four years, from 1824, till the year 1827 inclusive, has been annually 253 $\frac{6}{10}$ such loads.

Tellow, 31st October, 1827.

PART III.

Estimate of the Cost of Labour, on a Seven Years Course of Husbandry, on 375 Acres of inclosed Land, of a good Barley Soil, yielding after the Fallow 27 ½ Winchester Bushels of Rye an Acre.

1st Year. . . Fallow.
2d do . . . Rye.
3d do . . . Barley.
4th do . . . Oats.
5th do . . . Pasture.
6th do . . . do.
7th do . . . do.

FIRST COURSE, FALLOW.	Cost of Cultivation, or Expenses in relation to the Extent of the Land.			Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land.		
Extent of the Field, 53 $\frac{60}{100}$ acres.						
Hacking or Ploughing:						
Stubble furrow hacking:						
A team of oxen alternately employed during ten days, ploughs daily 3 roods, 27 $\frac{3}{5}$ perches; expenses 2*s.* 5 $\frac{7}{12}$*d.* or for 53 $\frac{60}{100}$ acres . .	£. 7	*s.* 3	*d.* 4	£.	*s.*	*d*
Fallow furrow hacking:						
Daily ploughing of one team, 1 acre, 1 rood, 22 perches; expense 3*s.* 6*d.* or for 53 $\frac{60}{100}$ acres .	6	13	5			
Turn furrow hacking:						
Daily ploughing of one team, 1 acre, 1 rood, 20 perches; expense 3*s.* 6*d.* or for 53 $\frac{60}{100}$ . .	6	13	8			
Seed furrow hacking:						
Daily ploughing of one team, 1 acre, 31 perches; expense 3*s.* 6*d.* or do	7	13	10			

(continued.)

	Cost of Cultivation, or Expenses in relation to the Extent of the Land.			Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land.		
First Course, Fallow—*continued.*						
HARROWING:						
Stubble furrow harrowing:	£.	s.	d.	£.	s.	d.
A team of four horses harrows daily, 5 acres, 2 roods, 4 perches; expense 6*s.* 1*d.* making for $53\frac{60}{100}$ acres	2	16	11			
Fallow furrow harrowing:						
Daily harrowing of one team, 4 acres; expense 6*s.* 1*d.*	4	0	2			
Turn furrow harrowing:						
Daily harrowing of one team, 4 acres, 2 roods, 7 perches; expense 6*s.* 1*d.*	3	10	3			
The harrowing in of rye:						
Daily harrowing of one team, 3 acres, 2 roods, 34 perches; expense 6*s.* 1*d.*	4	6	10			
SOWING $183\frac{77}{100}$ bushels of rye:						
One labourer sows $34\frac{15}{100}$ bushels, and costs 1*s.* 3*d.*; making together for $183\frac{77}{100}$ bushels	0	6	8			
Formerly $1\frac{1}{10}$ bushels of rye were sown on 1 rood, $11\frac{55}{100}$ perches, but since the marling, the same quantity is sown on 1 rood, 20 perches, to 1 rood $28\frac{60}{100}$ perches of land.						
Sifting the seed $\frac{1}{11}$th penny a bushel; making for 183 bushels	0	1	4			
Draining during the hacking on $53\frac{60}{100}$ acres	0	4	4			
Shovelling out the water afterwards, on $53\frac{60}{100}$ acres, $6\frac{3}{10}$ men	0	5	4			
Cleaning the fallow ditches, on $53\frac{50}{100}$ acres, 27,8 men, at $11\frac{3}{4}$ pence	1	7	4			
Levelling the edges of the ditches, on $53\frac{60}{100}$ acres, 4 men at $11\frac{3}{5}$	0	4	0			
Fallow Expense	45	7	1			
SECOND COURSE, RYE.						
SEED, $183\frac{77}{100}$ bushels of rye:						
Value of a bushel of rye on the farm, 2*s.* $7\frac{29}{100}$*d.*	23	18	4			
Expense of the carriage of dung; its proportion to the rye-fields.						
The dung is carried altogether to the fallow, but the expense of carriage must be divided over each course separately, in the proportion of the quantity of dung consumed by						

(continued.)

Second Course, Rye—*continued.*

	Cost of Cultivation, or Expenses in relation to the extent of the Land.			Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land.		
	£.	s.	d.	£.	s.	d.
the seed. From the observations made on the estate of Tellow, according to the Principles of Statics of Agriculture, the production of $4\frac{88}{100}$ bushels of rye, consumed on that soil, one fudder (waggon load) of dung. The harvest which followed that course yielded 1,474 bushels. The consumption of dung was accordingly $\frac{1474}{4\frac{88}{100}} = 333\frac{1}{3}$ loads of dung.						
The carriage of a load of dung to the field, cost at Tellow, $7\frac{1}{2}$ pence, $333\frac{1}{3}$ loads will therefore cost				9	16	8
Turning the dung into the furrows before the plough:						
$53\frac{66}{100}$ acres require $0\frac{8}{12}$ men, at $11\frac{40}{100}$ pence 11,0 women, $7\frac{66}{100}$ pence	0	7	4			
MOWING:						
The mowing of a crop $147\frac{41}{100}$ bushels of rye, has required at Tellow, $3\frac{88}{100}$ men, at $15\frac{80}{100}$ pence—5*s.* $1\frac{1}{2}$*d.*; the mowing of this course, producing $1,474\frac{13}{100}$ bushels, cost accordingly . . .				2	11	0
BINDING and STACKING:						
$147\frac{41}{100}$ bushels require $1\frac{8}{12}$ men, at $15\frac{60}{100}$ $3\frac{5}{12}$ women, $10\frac{40}{100}$ } 4*s.* $10\frac{3}{5}$*d.*						
making on a crop of $1474\frac{3}{100}$ bushels . . .				2	8	8
Raking the ears together, which have remained on the field during the cutting and binding, with a large rake, drawn by one horse; one man rakes daily with two horses alternately put to the rake, 21,98 acres;						
one man, at $15\frac{80}{100}$ pence } 4*s.* $7\frac{80}{100}$*d.* making on two horses, at 20 - d°. - } $53\frac{66}{100}$ acres .				0	11	4
Collecting in heaps the grass that has been brought up by raking: 22,51 acres require one woman at 8*d.*; making on $53\frac{66}{100}$ acres . . .				0	1	8
(Both these last kinds of labour require more or less time, according to the quantity of ears of corn that have remained on the field, and they are greater or less in proportion to the quantity of produce.)						
CARTAGE and HOUSING:						
Fourteen loads of corn are brought in daily by one team of horses; expense 9*s.* 6*d.* a day for						

(continued.)

Second Course, Rye—*continued.*	Cost of Cultivation, or Expenses in relation to the Extent of the Land. £.	s.	d.	Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land. £.	s.	d.
one team, or for a crop of 1,474 13/100 bushels of rye				5	0	0
Taking up the shocks from the field, and unloading them in the barn: 100 loads require 18 8/100 men, at 15 40/100 d. / 18 18/100 women, at 10 40/100 d. 1l. 19s. 10d. the cost of loading and unloading a crop of 1,474 13/100 bushels of corn, is				3	1	8
The re-setting and re-raking of the corn during a wet harvest, costs on 53 60/100 acres				0	3	4
THRASHING: The thrashing and cleaning the corn is paid to the labourers with the sixteenth part of the thrashed grain. (A minute calculation made on this subject shows, that the real cost of thrashing exactly corresponds with the amount of wages which the labourers receive in kind.)						
The value of the crop on the estate is, 1,544 bushels, at 2s. 7¼d.—£201; wages of thrashing, a sixteenth				12	13	9
Expenses of the course of rye	£.24	5	8	36	8	1

THIRD COURSE, BARLEY.

HACKING or PLOUGHING:			
Stubble furrow:			
One team of oxen ploughs 1 acre, 20 perches a day, at 2s. 7d.; the cost of 53,60 acres is accordingly	6	4	0
Turn furrow ploughing:			
A team of oxen ploughs 1 acre, 1 rood, 28 perches a day, at 3s. 6d.; expense on 53,60 acres	6	10	8
The ploughing in of the seed:			
A team of oxen ploughs daily, 1 acre, 1 rood, and 34 perches, at 3s. 6d.; expense on 53,60 acres	6	7	4
HARROWING:			
Stubble furrow:			
Four horses harrow 14 acres, 3 roods, and 38½ perches a day, at 6s. 0½d.; expense on 53,60 acres	1	1	8
Turn furrow:			
Five acres harrowed daily by one team, at 6s. 0½d.; expense on 53,60 acres	3	4	8

(continued)

Third Course, Barley—*continued.*	Cost of Cultivation, or Expenses in relation to the Extent of the Land.			Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land.		
	£.	s.	d.	£.	s.	d.
Seed furrow:						
Four acres, 1 fardingdeale, and 14 poles, harrowed daily by one team of horses, at 6*s.* 0½*d.*; expense on 53,60 acres	3	14	8			
Sifting of the seed:						
211¾ bushels of barley	0	1	8			
SEED:						
One rood and $4\frac{64}{100}$ perches, require $1\frac{1}{10}$ bushels of seed, making 211¾ bushels on $53\frac{60}{100}$ acres, at 1*s.* 11½*d.* the bushel on the estate . .	20	7	8			
SOWING:						
One labourer sows 48¼ bushels a day, costs 15*d.*; expense on 211¾ bushels	0	5	4			
MANURING:						
Dung required for this course: The production of 5,89 bushels of barley, consumes, on the soil of Tellow, one load of dung. The produce of the harvest being 1,474 bushels; their consumption of dung is accordingly 250 loads. The expense of carriage is $7\frac{1}{12}$*d.* a load; making together				7	7	8
MOWING:						
The mowing of a crop of 147,4 bushels of barley, costs 4*s.* 1*d.*; expense on 1,474 bushels				2	0	8
BINDING and STACKING:						
147,4 bushels, cost 3*s.* 4¼*d.*; 1,474 bushels . . .				1	14	0
RAKING the ears together that have remained on the ground:						
21,98 acres a day; 53,60 acres cost				0	11	4
Collecting the twitch grass in heaps				0	1	8
RESETTING and again raking, after wet weather: Expense on 53,60 acres				0	3	4
CARTAGE:						
Expense of one team of horses, at 14 loads a day, 9*s.* 5½*d.*, or on 1,474 bushels				3	4	4
LOADING and UNLOADING:						
2,72 loads on each labourer; expense on 1,474 bushels				1	19	8
THRASHING:						
The value of 1,544 bushels of barley is, on the						

(*continued.*)

Third Course, Barley—*continued.*	Cost of Cultivation, or Expenses in relation to the Extent of the Land. £. s. d.	Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land. £. s. d.
estate, at the price of 1*s.* 11½*d.* the bushel, 148*l.* 15*s.* 5*d.*; wages of labour a sixteenth in kind	. .	9 5 11
Expense on the crop of barley . . .	47 17 8	26 8 7
FOURTH COURSE, OATS:		
HACKING or PLOUGHING:		
Turn furrow in autumn: A team of oxen alternately put before the plough, ploughs 1 acre and 3 perches a day, at the expense of 2*s.* 6*d.*; cost on $53\frac{60}{100}$ acres . .	6 17 0	
Ploughing in of the oats: Ploughed by one team daily, 1 acre, 1 rood, and 33 perches, at 3*s.* $5\frac{2}{3}$*d.* making on $53\frac{60}{100}$ acres	6 7 0	
HARROWING:		
Turn furrow: A team of four horses harrows 4 acres, 2 roods, and $2\frac{6}{100}$ perches a day, at 6*s.* 0½*d.*; expense on $53\frac{60}{100}$ acres	3 14 8	
Seed furrow: Harrowed a day, by one team of four horses, 4 acres, 2 roods, and 6 perches, at 6*s.* 0½*d.*; making on $53\frac{60}{100}$ acres	3 11 4	
The seed: Sown on $53\frac{60}{100}$ acres, $262\frac{43}{100}$ full bushels of oats ($1\frac{1}{10}$ bushel on 36 poles); the value of a full bushel of oats on the estate is 1*s.* 7*d.*, or of $262\frac{43}{100}$ bushels	20 16 8	
Sifting of the seed: $\frac{1}{12}$*d.* per $1\frac{1}{10}$ bushel; making on 262,43 . .	0 1 11	
SOWING:		
Sown by one labourer $56\frac{43}{100}$ bushels a day, at 1*s.* 3*d.*; expense on $262\frac{43}{100}$ bushels . .	0 5 8	
MANURING:		
Dung consumed on this course: The crop yields $1\frac{433}{1000}$ heaped bushels, or $1{,}768\frac{33}{100}$ ordinary bushels of oats. The production of $8\frac{845}{1000}$ bushels of this grain consumes one load of dung. Consumption on 1,853 bushels at 7*d.* the carriage of a load of dung to the fields 200 loads	. .	5 18 0

(*continued.*)

Fourth Course, Oats—*continued.*	Cost of Cultivation, or Expenses in relation to the Extent of the Land. £.	s.	d.	Cost of Harvesting, or Expenses in relation to the Quantity of Produce of the Land. £.	s.	d.
MOWING:						
The mowing of 147 41/100 bushels of oats costs 2s. 11d.; making on 1,768 92/100 bushels				1	15	0
BINDING and STACKING:						
147 41/100 bushels cost 1s. 9d.; making on 1,768 92/100 bushels				1	4	4
RAKING the remaining ears together:						
Raked by one labourer with two horses, 21 84/100 acres a day; expense on 53 69/100 acres				0	11	4
Collecting the twitch grass in heaps				0	1	8
RESETTING and raking after wet weather:						
Expense on 53 69/100 acres				0	3	4
CARTAGE:						
One team of horses brings in 14 loads a day, and costs 9s. 5½d. 147,41 bushels; costs 3s. 9¾d., or on 1,768 92/100 bushels				2	5	8
LOADING and UNLOADING:						
Expense on 147 41/100 bushels 2s. 4¾d.; making on 9768,92 bushels				1	8	4
THRASHING:						
Value of 1,853 bushels of oats on the estate, at 1s. 3 13/100d. a bushel, 117l. 12s.; wages of thrashing 1/10th part in kind				7	7	0
Expense on the course of oats	41	14	3	20	14	8
FIFTH COURSE, PASTURE:						
Grass and clover seed	3	1	8			
Sowing	0	9	4			
	3	11	0			

SIXTH COURSE. No expense of labour.

SEVENTH COURSE. ditto.

(*continued.*)

RECAPITULATION:

	SEED.			COST of Cultivation.			COST of Harvesting.			Total Expenses.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
First Course . . FALLOW	-	-	-	45	7	1	-	-	-	44	7	1
Second Course . RYE . .	23	18	4	0	7	4	36	8	1	60	13	9
Third Course . BARLEY .	20	7	8	27	10	0	26	8	7	74	6	3
Fourth Course . OATS . .	20	16	8	20	17	7	20	14	8	62	8	11
Fifth Course . . . PASTURE	3	1	8	0	9	4	-	-	-	3	11	0
Sixth Course . PASTURE.		—			—			—			—	
Seventh Course PASTURE.		—			—			—			—	
Total expense on 375,20 acres	68	4	4	94	11	4	83	11	4	245	7	0

Besides all the expenses of labour, agriculture has also to bear such other expenses as embrace husbandry in general, and of which no repartition can be made on the separate branches of husbandry; they are as follows:—

1.—Costs of administering the estate.
2.—Interest on the value of the buildings, walls, &c.
3.—Repairs of the buildings.
4.—Insurances against fire and hail.
5.—Salaries to the clergyman and schoolmaster.
6.—Interest of the working capital (the interest on the value of the implements and live stock, divided between the farmer and proprietor.)
7.—Assistance to the poor, living on the estate.
8.—Salary, &c. of the watchman.
9.—Repairs of the roads, bridges, ditches, &c.
10.—Extra expenses.

According to a calculation, founded particularly on the circumstances attending the estate of Tellow, those general expenses of cultivation, in which the taxes to the government are not comprehended, amount together on 536⅓ acres of land, which yields a crop of $27\frac{48}{100}$ bushels of rye an acre, or the tenth corn . . .	210	0	0
The costs of cultivation on $375\frac{20}{100}$ acres were 245*l.* 7*s.*; making on $536\frac{66}{100}$ acres	351	14	5
Aggregate amount of expenses on $536\frac{66}{100}$ acres of land, yielding the tenth corn	£561	14	5

The substance of this calculation has been drawn from the accounts of the estate of Tellow, which had been made in the years 1810—1815. This

calculation forms, at the same time, the basis of the system founded on facts, and mentioned in my work, "The Isolated State."

The estimate of the cost of working power (men and animals,) is equally drawn up from special calculations, made during the same period.

The average price of a bushel of rye was, during those five years, in the market of Rostock .	$2\frac{941}{1000}$s. sterling.
Cost of carriage expenses from Tellow to Rostock, per bushel	$0\frac{339}{1000}$ —
Value of one bushel on the estate, from 1810 to 1815 .	$2\frac{602}{1000}$s. sterling.

Tellow, November 8th, 1827. (Signed) J. H. von Thünen.

As the questions proposed to M. von Thunen were drawn up by me in writing, whilst at his house, in the German language, and the money and measures used were those of the country, it has been impossible to transfer them into English money and measures, without the use of more fractions than, for clearness, is desirable to the reader; but if those fractions are wholly omitted, though the accounts would be slightly deficient in accuracy, they would be a much nearer approximation to it than I have been happy enough to discover in any other agricultural computations of the expenses of cultivation.

No. XI.—An Account of the Imports and Exports of Corn at the Port of Rostock, for each of the Years 1816 to 1826, and for the Year 1827, to the Date hereof, as far as can be ascertained.

YEARS.	IMPORTED.				EXPORTED.				—
	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.	
	Qrs.	Qrs,	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	
1816 . .	—	—	—	—	16,213	11,205	5,926	1,736	
1817 . .	—	—	—	—	33,601	34,573	7,492	2,156	
1818 . .	—	—	—	—	48,532	10,327	39,096	4,536	
1819 . .	—	—	—	—	38,697	22,774	15,795	8,904	
1820 . .	—	—	—	—	46,710	33,763	5,710	12,502	
1821 . .	—	—	—	—	21,789	13,932	14,512	5,600	
1822 . .	—	—	—	—	29,497	37,435	15,457	6,356	
1823 . .	—	—	—	—	41,431	38,637	7,624	5,110	
1824 . .	—	—	—	—	24,570	22,893	39,975	38,822	
1825 . .	—	—	—	—	41,015	25,584	73,411	11,760	
1826 . .	—	—	—	—	65,949	28,522	30,030	58,464	
1827 . .	200	1,950	100	—	45,058	6,617	23,114	47,488	

Rostock, the 16th December 1827. Vinc. Sigm. Parömse, His Britannic Majesty's Vice Consul.

Hamburgh, 25th December 1827. Henry Canning, Consul General.

No. XII.—An Account of the Imports and Exports of Corn at the Port of Wismar, for each of the Years 1816 to 1826, and for the Year 1827, to the Date hereof, as far as can be ascertained.

YEARS.	IMPORTED.				EXPORTED.				
	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.	
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	
1816 . .	—	—	—	—	12,251	5,319	8,821	—	*N. B.*—
1817 . .	4	24	—	—	25,684	16,510	4,664	641	The
1818 . .	—	—	—	—	31,772	1,107	32,083	2,370	Quar-
1819 . .	—	—	—	—	20,729	5,352	24,227	3,024	ters are
1820 . .	26	13	—	—	24,037	9,092	10,888	9,654	in Win-
1821 . .	12	74	—	—	7,087	8,869	13,139	6,102	chester
1822 . .	8	89	—	—	15,306	9,920	7,371	202	mea-
1823 . .	17	73	—	—	22,612	9,544	10,962	175	sure.
1824 . .	—	—	—	—	7,033	5,880	14,782	16,727	
1825 . .	5	98	—	—	21,964	4,995	27,500	7,519	
1826 . .	8	96	—	—	37,462	8,127	20,155	35,289	
1827 . .	70	233	—	—	22,484	5,474	12,163	29,046	

Wismar,
17th December 1827.

P. Susserott,
His Britannic Majesty's Vice Consul.

Hamburgh, 25th December 1827.

Henry Canning, Consul General.

Mecklenburg.

No. XIII.—Estimate of the Cost of Cultivating an Estate, requiring for Seed one Bushel, Imperial Measure, for each sixty Square Roods of sixteen Feet, and on which are employed thirty-six Persons, nineteen Horses, and twenty-four Oxen.

It is assumed that the arable land is divided into seven fields, cultivated according to the usual rotation of one fallow, three corn, and three grass years, and produce as follows:—

A.—Winter Corn.		Bushels.
24,000 roods, or 135 acres, are sown with 400 imperial bushels of wheat, and produce seven for one . . .		2,800
Deduct:		
Allowance of the 17th bushel to the thresher .	164¼	
Seed	400	
		564¼
		2,235¼
Further deduct, over measure, allowed on the sale 4 per cent.		89¼
Remains for sale . . bushels		2,145¾

B.—BARLEY.

24,000 roods, or 135 acres, are sown with 400 bushels, yielding		2,800
Deduct seed	400	
Threshing	164¾	
		564¾
		2,235¼
Over measure allowed on sale		89¼
Produce for sale bushels		2,145¾

C.—OATS.

24,000 roods, as before, producing 7 bushels per 60 roods, or 20 imperial bushels per acre		2,800
Deduct seed	489¼	
Thresher	164¾	
		654¼
Oats for sale bushels		2,145¾

On the sale of Oats no over measure is allowed, being sold in the country by a heaped measure.

EXPENDITURE.

For housekeeping, maintenance of the people and the cattle, wear and tear of cattle, house and field utensils; also, of the buildings, and for defraying other expenses to which a proprietor is liable, will be required as follows:—

Note.—The prices of Corn are taken on an average of the prices of twenty years, from 1805 to 1824, inclusive, agreeably to a table furnished by a sworn broker at Rostock.

A.—CORN.

For the cultivator and family, supposed to consist of six persons, besides a bailiff, housekeeper, six hinds, and four maid-servants, making together eighteen persons.

	£.	s.	d.	£.	s.	d.
1st.—Wheat, two-thirds of a bushel each person, being 12 bushels, at 4/6				2	14	0
2nd.—Rye, 10 bushels each, is 180, at 3/9	33	15	0			
To the first ploughman, the usual allowance of 24 bushels, at 3/9	4	10	0			
To the herdsman, his allowance, 30 bushels at 3/9	5	12	6			
				43	17	6
3rd.—Barley, for the housekeeping, in malt, grits, pearl barley, &c. for each person, on an average, 8 bushels, being 144 bushels, at 2/6½	13	6	0			
Grits for pigs, 48 d° at 2/6½	6	2	0			
				19	8	0
Carried forward				£ 65	19	6

	£.	s.	d.	£.	s.	d.
Brought forward				65	19	6
Grits for poultry, 52 bushels, at 2/6½	6	12	2			
Allowance to the ploughman and herd, 24 bushels, at 2/6½	3	1	0			
				9	13	2
4th.—Pease for the family, 6 bushels, at 3/7½	1	1	9			
For fattening 8 large pigs, 80 bushels, at 3/7½	14	10	0			
D° . . 4 small d° 16 d° at 3/7½	2	18	0			
For the ploughman and the herd, 4 bushels each, 8 bushels, a' 3/7½	1	9	0			
				19	18	9
5th.—Oats for 19 horses, viz. 16 draught, if 1 extra; 1 for the master, and 1 for the bailiff, at 1 bushel and 3 pecks daily, are 1,733 bushels, a' 1/8	144	8	4			
For chopping for the oxen in the spring seed time, 12 loads, of 18 bushels, 116, a' 1/8	9	13	4			
For 40 geese, 1 bushel each, 40, at 1/8	2	17	8			
For grits, 8 bushels, a' 1/8	0	13	4			
For strangers horses, 24 bushels, a' 1/8	2	0	0			
				159	12	8
B.—Meat for the Family.						
1 Ox, deducting the value of the skin	5	0	0			
2 Cows, a' 48/ each	4	16	0			
2 Smaller cows, a' 20/ each	2	0	0			
10 Sheep, a' 5/ each	2	10	0			
				14	6	0
C.—Wear and Tear of Cattle.						
On 12 horses, calculated to be	16	13	4			
Consequently, on 18, is	25	0	0			
On 4 oxen, each, 33/4	6	13	4			
				31	13	4
D.—Upholding, the whole Inventory.						
1st.—A stool waggon	4	3	4			
2d.—Four road waggons	8	0	0			
3d.—Five field waggons	5	0	0			
4th.—Shoeing 18 horses, a' 5/6	4	19	0			
5th.—Keeping in repair 7 ploughs, a'	8	3	4			
6th.—D° . . 3 teams, iron harrows	1	10	0			
7th.—D° . . 4 d° wooden d°	0	14	0			
8th.—D° . . 4 sets of harness	5	6	8			
9th.—Four barrels of tar	3	6	8			
10th.—Ropemaker's bill	2	0	0			
				43	3	0
Carried forward				£344	6	5

	£.	s.	d.
Brought forward . .	344	6	5
E.			
The house, kitchen, and garden utensils . . .	5	0	0
F.			
Grocery, salt, brandy, herrings	8	6	4
G.			
After deducting the corn consumed on the estate, there remains so much as to require 29 journies to carry it to market. Each journey occupies two days, and the expenses of the bailiff amount to 2/4, and of each waggoner 1/2 per day, being 58 days, at 4/8 per day . . .	13	10	8
H.			
Spinning and weaving	3	0	0
I.			
Sweeping chimnies	0	13	0
K.—Wages; viz.			
1st.—Bailiff 13 5 0			
2d.—Housekeeper 6 0 0			
3d.—Four carters for the horses, 1 ox driver, 1 ploughman, 6, at 2*l.* 14*s.* per annum 16 4 0			
4th.—Four maids, two a' 40/, two a' 35/ . 7 10 0			
5th.—Cattle hind, an old man or boy . . 1 6 0			
6th.—The head ploughman . . . 4 4 0			
7th.—The cowherd, who also attends the pigs 4 0 0			
8th.—Twelve day labourers employed on the estate, who, to maintain their families, must earn 5*l.* 16*s.* each . . 69 12 0			
	122	1	0
L.			
Doctor, and medicines for the people and cattle . .	4	4	0
M.			
Maintaining the buildings	8	8	0
N.			
Clergymen and church dues	3	8	0
O.			
Dependant poor	3	8	0
P.			
Public and provincial contributions and taxes, the estate being rated at four hides, at 11*l.* 14*s.* per hide . .	46	16	0
Q.			
Contributions for fire insurance . . .	3	8	0
Carried forward . .	£566	9	5

	£.	s.	d.
Brought forward . .	566	9	5
R.			
Expenses of the manor court, 16/8 per hide . .	3	6	8
S.			
Cutting wood and turf for fuel . . .	3	13	6
T.			
Insurance against hail, and fire in the field . .	10	0	0
W.			
Cutting wood for posts, rails, inclosures, &c. .	1	5	0
X.			
Clothing, and other necessaries for the family .	50	0	0
Y.			
Interest on the capital of the inventory on the estate, insured for the sum of 800*l.* at five per cent. . .	40	0	0
	674	14	7
From this is to be deducted:			
1st.—Net produce of the dairy of 100 cows, 1*l.* 6*s.* 8*d.* each . . . 133 6 8			
2d.—Net produce of 500 fine wooled sheep, at 3*s.* 4*d.* each . . 83 6 8			
	216	13	4
Remains	458	1	3
The Corn sold either on the estate, or at market, or consumed at home, is:—			
2,145 bushels Wheat, at 4*s.* 6*d.* . 487 12 6			
2,145 bushels Barley, at 2*s.* 6½*d.* . 272 11 10			
2,145 bushels Oats, at 1*s.* 8*d.* . 178 15 0			
	938	19	4
This would leave to be divided between the landlord for his rent, and the farmer for his profit, beyond his subsistence, and that of his family, which is here allowed for, the sum of	480	11	1
According to this statement, the actual cost of cultivation, without rent to the owner, or profit to the cultivator, would be thus:—			
Wheat . . 2*s.* 5*d.* per Imperial Bushel.			
Barley . . 1*s.* 4*d.* do.			
Oats . . 9½*d.* do.			
At these prices, the amount would be, within a very trifling fraction, the amount of the net produce of the three kinds of Grain; as for example:—			
2,145 bushels of Wheat, at 2*s.* 5*d.* . .	259	4	11
2,145 Barley, at 1*s.* 4*d.* . .	143	0	0
2,145 Oats, at 9½*d.* . .	78	16	11
	481	1	10

The estate to which this calculation refers, is about 1,800 acres in extent, comprehending, besides, about 1,000 acres under the plough, woods, meadows, and waste land.

It was valued in 1805 at 11,000*l.* If it be assumed that five per cent. be the due remuneration for the capital to be divided between the proprietor and the renter, viz. four per cent. for the former, and one per cent. for the latter (the interest on his capital of 800*l.* being included in the expenses of cultivation), it will not be deemed excessive for a country where capital is by no means abundant. In that case, there must be added to the cost of the Corn 550*l.*, making it to be 1,008*l.* 8*s.* 3*d.*; and the raising it, including such profits, would be, for Wheat, 5/; Barley, 2/9; and Oats, 1/8 per bushel:—

2,145 bushels of	Wheat, at 5/ . . .	536	5	0
2,145	Barley, at 2/9 .	294	18	9
2,145	Oats, at 1/8 . . .	178	15	0
		1,009	18	9

According to this account, the average prices, from 1805 to 1824, rendered less than the common interest of money between the two parties interested in this estate; for though in some years of that series, Corn rose to the highest prices ever known, yet the last five years of the period more than counterbalanced these high prices.

No. XIV.—An Account of the Lowest and Highest Prices of Wheat, Barley, and Oats, in the Market of Copenhagen, from the Year 1815 to the Month of September ending 1827.

YEARS.	WHEAT.		RYE.		BARLEY.		OATS.	
	Highest Price.	Lowest Price.	Highest Price.	Lowest Price.	Highest Price.	Lowest Price.	Highest Price.	Lowest Price.
	Per Qr.	Per Qr.	Per Qr.	Per Qr.	Per Qr.	Per Qr.	Per Qr.	Per Qr.
1815 . .	31/10	39/5	22/9	29/9	10/7	15/11	7/8	12/5
1816 . .	25/	54/8	18/2	36/4	9/10	22/	6/	14/10
1817 . .	36/4	82/	24/3	44/	18/2	31/1	12/5	23/6
1818 . .	36/4	52/4	25/	38/7	18/11	36/4	12/10	22/9
1819 . .	22/	48/6	16/8	41/7	12/1	34/10	9/10	23/11
1820 . .	17/	33/4	10/7	18/11	7/6	15/2	5/3	12/1
1821 . .	15/11	22/9	8/3	12/10	6/9	11/4	4/6	8/3
1822 . .	15/11	21/3	9/5	14/4	7/6	10/7	5/8	9/1
1823 . .	13/11	24/3	9/1	21/9	6/9	13/11	5/3	12/1
1824 . .	11/4	22/9	8/3	10/11	6/4	10/7	4/6	7/3
1825 . .	12/7	19/8	7/2	15/	6/9	14/4	5/8	8/5
1826 . .	12/1	30/4	10/7	30/4	7/3	26/1	4/6	24/3
1827 . .	18/6	29/2	15/2	28/10	12/5	25/9	9/1	22/

Copenhagen, September 1827.

No. XV.—Export of Corn from the Dominions of Denmark; with an Estimate of the Stock on hand in September 1827, in Denmark Proper.

YEARS.	From the Kingdom of Denmark.				From the Duchy of Schleswig.				From the Duchy of Holstein.			
	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Oats.	Barley.
	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.	Imperial Quarters.
1820 . .	21,529	44,620	132,910	71,412	28,562	4,319	14,397	51,512	53,124	14,608	40,923	68,471
1821 . .	31,570	192,235	239,465	62,749	29,495	21,948	16,000	44,170	38,451	27,480	42,683	56,195
1822 . .	30,633	154,423	140,442	30,629	17,240	44,216	17,035	45,926	27,075	40,918	35,327	57,306
1823 . .	34,500	141,033	161,075	30,717	30,581	31,152	19,453	33,882	46,404	28,605	27,218	43,498
1824 . .	27,178	173,245	225,151	80,082	25,282	35,420	24,905	91,190	37,111	27,468	47,142	78,947
1825 . .	41,715	176,572	279,272	30,014	24,184	30,263	39,859	30,014	47,817	21,760	97,143	68,336
1826 . .	43,510	101,131	196,332	65,047	26,117	17,188	19,411	86,102	65,993	12,376	51,002	103,677

The foregoing is extracted from the Official Reports of Government; it does not include what may have been exported when manufactured into Flour, Malt, or other Articles.

The Stock of Grain of last Year's Produce, now on hand in Zealand, may be estimated not to exceed 4,687 Quarters of Wheat, 8,500 Quarters of Rye, and 4,687 Quarters of Barley, chiefly in the hands of Government. No Oats.

No. XVI.—An Account of the Quantities of Grain, Butter, and Cheese, exported in the Year 1825, from the Kingdom of Denmark, and the Duchies of Schleswig and Holstein, into Foreign Countries, with the Average Value thereof, according to the Regulation of the Currency of the same Year, rendered into English Money.

	qrs.				£.	s.	d.
WHEAT:							
Grain .	118,872						
Flour .	3,763						
	122,635	. .	at	12/10	78,690	15	10
RYE:							
Grain .	238,936						
Flour .	1,139						
	240,075	. .	at	11/2	134,041	17	6
BARLEY:							
Grain .	435,131						
Meal .	968						
Gruts .	9,546						
Malt .	30,179						
	475,824	. .	at	8/6	202,225	4	0
OATS:							
Grain .	142,364						
Flour .	711						
Gruts .	470						
	143,545	. .	at	5/5	38,876	11	0
BUCK-WHEAT:							
	15,801						
Flour .	43						
	15,844	. .	at	8/5	6,667	13	6
Gruts	1,974	. .	at	19/4	1,908	4	0
PEASE, VETCHES, and BEANS, .	30,298	. .	at	9/3	14,012	16	6
Total exportation of grain . .	1,030,195		value	.	£. 476,423	2	4
BUTTER	136,504 cwt.	.	at	39/6 per cwt.	269,595	8	0
CHEESE . . .	13,218 -	.	at	9/2 —	6,058	5	0
Total exportation of corn, butter, and cheese, at the average price of 1825, amounting at least to .					£. 752,076	15	4

No. XVII.—An Account of the Quantities of Grain, Butter, and Cheese, exported in the Year 1826, from the Kingdom of Denmark and the Duchies of Schleswig and Holstein, with the Average Value thereof, according to the Average Price of every Six Months, and the Regulation of the Silver Currency, in the Years 1825 and 1826.

		qrs.			£.	s.	d.
WHEAT:							
From Jan. till June	Grain	62,022					
	Flour	1,936					
			63,958	at 12/10	41,039	14	4
— July till Dec.	Grain	79,747					
	Flour	2,484					
			81,834	at 21/7	88,309	5	9
RYE:							
— Jan. till June	Grain	59,550					
	Flour	602					
			60,152	at 11/2	33,584	17	4
— July till Dec.	Grain	77,019					
	Flour	729					
			77,748	at 22/2	86,170	14	0
BARLEY:							
— Jan. till June	Grain	147,507					
	Flour	648					
	Gruts	4,990					
	Malt	15,578					
			168,743	at 8/6	71,715	15	6
— July till Dec.	Grain	131,219					
	Flour	190					
	Gruts	2,632					
	Malt	7,162					
			141,203	at 19/3	135,907	17	9
OATS:							
— Jan. till June	Grain	95,067					
	Gruts	167					
			95,234	at 5/5	25,792	10	10
— July till Dec.	Grain	171,066					
	Gruts	231					
			171,297	at 14/10	127,045	5	6
BUCK-WHEAT:							
— Jan. till June	Grain	2,053					
	Meal	12					
			2,065	at 8/5	869	0	7
— July till Dec.	Grain	423					
	Meal	42					
			465	at 13/10	321	12	6
— Jan. till June	Gruts	556	. . .	at 19/4	537	9	4
— July till Dec.	Gruts	664	. . .	at 28/	929	12	0
			1,220				
PEASE, VETCHES and BEANS:							
— Jan. till June . .		13,173	. . .	at 9/3	6,092	10	3
— July till Dec. . .		24,459	. . .	at 23/11	29,248	17	9
Total exportation of corn		901,548	. . . . .		£. 647,565	10	5
		cwt.					
BUTTER		105,464	. . .	at 39/6	208,291	8	0
CHEESE		9,406	. . .	at 9/2	4,311	1	8
Total exportation of corn, butter, and cheese, in 1826, amounting, at the average price of 1825-6, at least to					£860,168	0	1

No. XVIII.—An Account of the Exportation of Grain, Flour, Butter, and Cheese, from all Ports of the kingdom of Denmark, and the Duchies of Schleswig and Holstein, during the first Six Months of the Year 1825, rendered into English Measures and Weights.

From	Wheat.		Rye.		Barley.				Barley-Grut.	Oats.			Buck-Wheat.			Pease.	Beans and Vetches	Butter.	Cheese.
	Grain.	Flour.	Grain.	Flour	Grain.	Meal.	Gruts.	Malt.		Grain.	Meal.	Gruts	Grain.	Meal.	Gruts				
	Qrs.	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Lbs.*	*Lbs.*
Copenhagen	9,482	30	17,066	- -	16,450	- -	249	3,100	- -	769	- -	16	5	- -	23	277	295	119,520	34,300
Other parts of Zealand	2,650	91	13,376	3	32,135	3	325	1,192	- -	587	- -	- -	- -	- -	15	972	914	4,680	1,750
Tühnen .	2,374	136	24,751	17	27,712	- -	826	2,454	- -	3,484	- -	- -	66	- -	36	769	1,943	187,380	13,650
Lalland & Falster	6,863	24	5,903	7	19,268	- -	55	261	- -	850	- -	- -	- -	- -	- -	866	1,567	3,000	525
Jutland .	800	28	29,603	- -	30,798	84	1,143	4,599	- -	3,802	- -	- -	384	- -	13	705	145	651,440	16,275
Schleswig .	12,594	1,197	17,782	183	20,326	337	552	2,493	1,597	10,438	700	5	7,832	- -	569	928	1,784	933,780	192,850
Holstein .	22,798	795	13,474	323	28,825	234	78	162	731	21,353	25	160	4,023	9	266	234	1,040	2,771,460	309,750
	57,561	2,301	121,982	503	175,514	658	3,228	14,261	2,328	41,283	725	181	12,310	9	922	4,751	7,688	4,671,260	569,100

No. XIX.—Exportation of Wool from Denmark.

There have been Exported, from the first of May 1824, to the first of May 1825.—

Raw Wool . . 910,387 pounds weight (English).
Tannery Wool . . 20,234 . . Dº

This quantity, compared with those exported in former years, shows a great increase in the Exportation of Wool.

The average Exportation of the years 1820, 1821, and 1822, was 636,548 pounds weight (English). The increase of the last years in the Exportation of that article amounted therefore to 273,839 pounds weight. In the year 1822, there was Exported 874,155 pounds; the increase against that year was therefore 36,232 pounds weight.

With regard to the Tannery Wool, the Exportation of it, compared to the average Exportation of 1820, 21, and 22, has decreased about 3,300 pounds weight.

The following are the Custom Houses at which the Exportation of the chief quantity of wool has been declared.

Aalborg	96,923	396
Aarhuus	21,204	18
Frederiksharn	14,627	—
Hjerting	8,244	467
Hiorring	2,409	—
Horsens	171,288	—
Copenhague	237,209	1,787
Mariager	5,898	18
Randers	184,791	6,223
Ribe	4,220	—
Ringkiöbing	119,503	1,945
Rönne	3,301	—
Rotwig	- -	9,856
Skagen	11,767	—
Svendborg	70	3,433
Thisted	14,313	—
Wedbeck	528	801
Weile	3,309	462

No. XX.—Translation of a Letter from Mr. Iverson, an intelligent practical Farmer, in the District of Engelland, in Sleswick.

The attention with which you were pleased to honour my small establishment, in consequence of the recommendation of Baron Voght, of Flottbeck, has been flattering to me in no small degree; but I regret that your time was so short, as to prevent me from being so useful to you as I could have wished; I shall therefore give you now some information respecting the state and nature of our rural economy, by referring to the questions which you proposed to me, and which formed the chief subjects of our conversation, as far as I can recollect them.

I shall first proceed to some general remarks, which will probably not have escaped your attention on your examination of this country.

As the soil of the duchies, both of Schleswig and Holstein, is divided into three principal tracts of land, differing from each other; so likewise is the mode of husbandry divided into three different systems, each embracing a different kind of cultivation adapted to the nature of the soil.

The midland tract of the country comprehends very extensive badly cultivated heaths. The estates in those districts are, at the present corn prices, scarcely worth the fourth part of the cost of their buildings, the soil not producing, under the present circumstances, as much as the expense of cultivation and the taxes amount to. Near the rivers and brooks, where good meadows are met with, the value of the land is somewhat higher, from dung and feed being more abundant.

The western district of the country consists of rich marsh land, and is protected from the sea by expensive dikes.

The eastern tract, part of which stretches out far into the bay which the Baltic has formed there, has, for the most part, a good and strong loamy soil. Even the sandy lands, which are now and then found there, rest upon a stratum of moist clay. Marl is likewise found in this part of the country, almost every where.

The preponderating pursuit of rural economy in both duchies is, at the present moment, the breeding of cattle. I say, with emphasis, "at the present moment;" for, formerly, from the year 1796 to 1808, when we had constantly high corn prices, and Wheat often sold at 9*s.* a bushel, and even more; Rye, from 4*s.* 6*d.* to 6*s.* 4*d.*; Barley, 3*s.* 8*d.*; and Oats, from 2*s.* 9*d.* to 3*s.* 8*d.*; the cultivation of Corn was the principal object of husbandry; and breeding cattle remained comparatively so neglected, that the fields were not properly manured for want of dung. The practice of marling, which was afterwards adopted, caused, however, the soil soon to recover its exhausted power, and yielded the farmer a quantity of manure that made him soon forget the check which husbandry experienced from the immoderate cultivation of Corn. Considering the stimulus which was given to the productive power of the soil, it was certainly a fortunate circumstance that the decline in the prices of Corn, which took place soon afterwards, began to show itself gradually, till the fall reached that scale at which the cultivation of Corn became an unprofitable concern. It was then that the agriculturists of Schleswig, Holstein, Mecklenburg, Saxony, Prussia and Austria, applied themselves very zealously to the breeding of sheep and cattle. In the duchies of Schleswig and Holstein, the eastern districts began to increase their dairies; the midland districts applied themselves to the rearing; and the marsh lands to the fattening of neat cattle.

Those different modes of husbandry are closely connected with each

other. The refuse cows from the dairies on the shores of the Baltic are bought up for the medium pastures of the marsh district, which are not fit for fattening the heavy oxen. These cows fatten for the inland markets.

The large and heavy oxen, which are not fattened on the rich pastures, are reared partly in Jutland, partly on the borders of the marshy districts. A medium breed is brought from the midland part of the country; but, from the want of nutritious pasture there, that breed cannot grow up to a good size, and the cattle, when about eighteen months old, are generally sold to the peasants of the marsh country, or to such districts where the herbage and winter food are sufficiently nutritious to make the neat cattle attain a due size. When they have reached their fourth year, they are put to fatten. The estates recruit their live stock mostly by buying cattle of three years old, from those parts of the country which are unfit for dairies, or where those establishments are not so profitable as the rearing of neat cattle.

I thought this preliminary statement necessary, in order to give you a correct view of the tendency and nature of our rural economy. The close connection of the different interests, the continual traffic amongst our agriculturists themselves, the peculiar division of our fields, the arrangement of our buildings, in short, every thing indicates the long standing of this system of husbandry.

A momentary excitement to the growth of Corn will therefore not induce our farmers to abandon the present system for that of cultivating Corn.

It is a fact, that the low prices of Grain have compelled us to restrict the cultivation of Corn within the narrowest possible compass, and to increase on the other hand our stock of cattle, as much as the nature of the soil will permit. This change has been effected by leaving out one year of summer Corn, and by substituting Corn as winter food for the deficient straw. By this means we obtained a more powerful manure, which converted our exhausted lands into good pastures, and afforded more nutritious food to our cattle.

The re-appearance of steady high prices, such as would make it more advantageous to sell our Corn in the market than to apply it for the production of our dairy produce by feeding our cattle with it, may, no doubt, induce us to give our cattle less Corn, and especially, if the produce of our dairies should become cheaper; but this will never have the effect of totally altering our present system of rural economy, and for the following reasons:—

First—The present system of our inclosures operates already as a check to prevent us from doing so; our fields are inclosed by mounds, dams and ditches, which are covered on all sides with grass and trees;

they cannot be removed without incurring great expenses, to which no proprietor would assent.

Secondly—The farmers are obliged, from the tenor of their leases, to follow a fixed course of cultivation, from which they cannot depart; they cannot use the soil for the growth of any crop other than what the leases prescribe. No proprietor would permit it.

I have yet to mention the system followed in the midland districts of the country. In these parts Rye and Buck-Wheat are the only Grain cultivated. A large proportion of the produce of Rye is given to the black cattle, and this Grain being besides the chief food for man in this country, the greater part of the crop is thus consumed in the country itself; and the surplus produce is generally sent to Norway. Now and then small quantities are also shipped off from the western coast of Holland.

There remains, therefore, the third division of the country, the low (marsh) lands, as the only part where the present system of husbandry could be abandoned for that of cultivating Corn, should the prices of Grain encourage such an undertaking, as the soil there, particularly in the polders (like the embankments in East Friesland), would, after a full fallow, and a well-managed rotation, yield Wheat even without being manured. But the wealthy peasant of the marsh lands will not so easily be induced to break up his meadows of a hundred years grass, and convert them into corn fields. He will certainly not do so for the sake of a short favourable period in the price of Corn; it would require at least fifty years growth before the pastures would recover again their nutritious quality, so as to fatten an ox on them as well and as speedily as they now do it. A person looking only to a momentary profit, or an embarrassed landholder about to lose his property, could be tempted to avail himself of such a temporary remedy; and even then he would be obliged to begin with a crop of Oats, which our deeply potched pastures require, before the soil can be made mellow enough to grow winter Corn, even after a year's fallow. Three years will thus elapse from the first breaking up of the soil till Wheat can be exported, consequently nothing but steady high prices can bring about any great increased exportation of Wheat from our marsh districts.

This state of things shows, that the cultivation of Corn in our country at the present prices, is to be regarded rather as a matter of necessity than as an object of profit in a pecuniary point of view; its cultivation is chiefly necessary for providing our herds of cattle with food during winter. In all engagements between the farmers and proprietors, the produce of the dairies forms the basis of the amount of rent, and the Corn crops are only brought into the estimate, in as far as they apply to the expense of feeding the cattle.

In conjunction with other agriculturists, I have in these latter years

framed several estimates of the cost of production, on large as well as on small farms, and we are obliged to deduct a per centage from the produce of the dairy, to cover the loss that arose from the cultivation of Corn.

At the present rate of wages of labour, the expenses attending the keeping up the implements and live stock, the rate of insurances, &c. the average cost of production is nearly—

25/7 the Quarter of Wheat.
18/3 - - - - Rye.
17/ - - - - Barley.
And 9/9 - - - - Oats.*

There are, however, circumstances which will produce an influence upon the cost of production in a more or less degree; a more moderate rate of wages, a rich medium soil, that does not require any expensive ditches or too costly management for keeping the land dry, the proximity of a market, or where manure can be had cheap from the neighbourhood; all these will render cultivation less expensive, whereas the want of such advantages will enhance its cost. Even a few grains more or less in the produce of the crop, make at all times a sensible difference in the cost of production.

The many estates which you have seen in our country, as well as the conversations you have had on the subject of agriculture with many of our best informed landholders, will have afforded you the best opportunity of judging how far my views coincide with your opinion and theirs, or not. My aim only was to direct your attention towards that point of view from which I myself set out, when I consider the state of our rural economy. As an acute observer, you will soon discover that of a more general character. Whatever modifications my opinion may be susceptible of, this however will remain uncontroverted, that so long as the ton of butter (224 lbs.) sells in Hamburgh from 5*l.* 18*s.* to 6*l.* 9*s.* (6½*d.* to 6½*d.* per lb.), and these prices will maintain themselves as long as the production of wool is the chief object with the German landholders, and their dairies considered as chiefly necessary to be kept up for the sake of getting manure; so long as this state of things remains, the dairies will be with us the chief object of our rural economy, and no high price of Corn, which now and then may occur, will induce us to raise Corn for exportation to such an increased extent as to produce any influence upon the Corn markets of England. We shall never risk again the spoiling of our rich pastures by an extensive cultivation of Corn, to the ruin of our dairies,

* In the second number of the Agricultural Review, published by the Royal Patriotic Society of Altona, I gave the details of an estimate of the value of the different crops. The cost of production of Wheat was there made out to be 39/; that of Rye 32/3; Barley 24/4; and Oats 17/. But this account referred only to an individual estate incumbered with heavy taxes.

the consequence of which would necessarily be a considerable diminution in our herds of cattle.

As to your questions respecting the system of husbandry pursued on my property, I beg to observe, that my possession belongs to the smaller class of estates. A property of 500 acres is already called a small estate; mine has only an extent of 247 acres, and the mode of its management differs but very little from that usually adopted in Holstein.

The soil is every where a good loamy mould, with more or less of clay; some closes are very argillaceous, others sandy; with the exception of light sand, there is indeed soil of almost every description. Full three-fourth parts are arable land; the other part consists of meadows, wood and turf. The pastures are generally of a moory ground, and yield but a moderate supply of hay. I am therefore under the necessity of feeding my cattle with much corn and potatoes to keep them in strength. The third part of the arable land is fit for wheat; the two other thirds for rye.

The fields are divided into fourteen chief closes, and six accessary ones. The former are inclosed, each separately, by banks of mould, which are planted with live wood, hazels, willows, alder trees, &c. Each field has an extent of 14 acres and 7½ poles. The others have neither a determined extent, nor is a fixed mode of rotation applied to them; they are taken out of pasture occasionally only to be strongly manured.

The whole tillage ground had been marled, twenty-five years ago, with one load of marl on 233 square feet (English), and the depth of the seed-bed has gradually increased to eight or nine inches. Part of the soil is very tenacious and cold, and requires careful and sometimes expensive drainings. The lighter tracts are much inclined to twitch and couch grass.

The rotation which I follow, is—

First Year.—Clean fallow.

In the autumn preceding the fallow the soil is broken up in narrow furrows, and is turned over an inch deeper about the end of April; it is afterwards harrowed very thoroughly. In the beginning of June the fallow ground is manured; 20 heavy loads of dung on each 1 $\frac{29}{100}$ acres. The dung, after being well dried, is ploughed in; a cleansing harrow follows upon it. In the beginning of July a cross-ploughing to the whole depth, which it is thought proper to give the soil, takes place, and harrowing follows again. Where weeds are springing up, and threaten to ripen, the fallow is ploughed once more before the seed is put in, but not otherwise; rollers are only used where the soil forms clods.

Second Year.—Where the soil is too luxuriant for wheat, I sow rape, otherwise wheat or rye. The quantity of seed grain amounts to 2 $\frac{58}{100}$ bushels of wheat per acre; that of rye to 2 $\frac{29}{100}$. The average crop of wheat is the twelfth corn, and of rye the tenth. Harrowing the wheat in the spring is thought beneficial; the roller is afterwards passed over,

In autumn the wheat fields are ploughed with a thin and narrow fallow.

Third Year.—The rape is succeeded by wheat, which requires two ploughings, after which barley is sown, which also requires two ploughings during spring, the first from four to five inches deep, when the soil has become properly dry, after which it is cleansed with the harrow, and then remains in this state for the reception of the seed. I generally follow the method of ploughing the barley in as flat as possible, and harrowing it when the seed begins to vegetate, after which a stone roller is lightly drawn over it.

The quantity of seed grain is 2 $\frac{44}{100}$ bushels on an acre. The twelfth corn is the average produce of the crop. The barley stubble I bury in autumn, by ploughing about four inches deeper than the land was ploughed for sowing the barley.

The Fourth year.—Oats with clover. The oats are sown after one ploughing, 4 $\frac{44}{100}$ bushels of seed on an acre. It yields the ninth corn on an average. All the summer corn is passed with the roller. The thistles are destroyed during the summer months.

The Fifth, Sixth, and Seventh Years.—Pasture.

The Eighth Year.—Soiling crop, consisting of oats and tares. For this purpose, the pasture is prepared on the flat in autumn, and then ploughed in the subsequent spring, when the soil has become sufficiently dry, about five inches deep; the seed is then sown somewhat thickly, and afterwards strongly harrowed and rolled. When the tares stand in full blossom, and the formation of pods begins, they are mown, and made into hay. This crop produces at least five loads on 1 $\frac{33}{100}$ acres. The tare harvest precedes that of clover, which would otherwise have been mown for winter food, but merges now into the pasture. The seed of it prepares at the same time the ground for another crop in a most excellent way. Immediately after the tares are harvested, the soil is ploughed and harrowed again; about a fortnight afterwards, it is manured with 15½ loads of dung on an acre. It then remains, after a re-ploughing, harrowing, and generally a rolling, in this state till seed time.

The Ninth Year.—Wheat or rye. The quantity of seed, the preparation and the produce of the crop, are often the same as after the clean fallow. The difference as to the less quantity of produce of this course, is seldom more than 3 $\frac{88}{100}$ bushels on an acre of land.

The Tenth Year.—Barley. Preparation and harvest like the third year. The produce from the light soil is, however, about six bushels less on an acre.

Eleventh Year.—Oats, for which purpose the soil is manured during the preceding winter with somewhat less than eight loads of dung on an acre. Clover, two-third parts red, and one-third white, is also sown among this grain. On a light and sandy soil, perennial ray grass is added. The cattle refuse, however, the latter plant in the middle of the

summer, when it has become hard. Our pastures potch very soon, even when the soil is not strongly cultivated.

Twelfth, Thirteenth, and Fourteenth Years.—Pasture. The quality of the pastures depends on the compactness of the patches, and on the softness of the grass; only a heavy treading prevents the appearance of moss. A careful husbandman will always mow off the thistles which appear on his pasture in the beginning of August, and cause the dung from the excrements of the cattle to be scattered over the ground. The pasture improves the soil in a much greater degree than the theoretical agriculturists will allow.

I keep on my small property eight horses, of which four to six are fed in the stable: I employ three servant-labourers, four day-labourers, and a cow-herd. The head servant receives annually 6*l.* 2*s.* sterling, wages, the two others 4*l.* 10*s.* sterling, each, the cow-herd 2*l.* The wages of the day-labourers are, during harvest 10½*d.*, in summer 8½*d.*, and in winter 7*d.* a day, without board. Much piece-work is, however, let by contract, such as the cleansing of the fallow ditches, the mowing of grass from the dams and mounds, the cutting of turf, marling, and many other kinds of labour. Thrashing is paid in kind from the fourteenth or sixteenth to the eighteenth bushel. On the large estates only the eighteenth measure is given; but the labourers have some other allowances besides, such as some fuel, and also a patch of potatoe or flax-ground. During the fallow, &c. villanage and the indefensible personal services have been of late abolished. The former bondsmen on the estates have since become either tenants on leases, or hereditary farmers. The legislative measures on this subject are, however, still somewhat imperfect. Personal service on the estates, as is still the case in Denmark, exists but very rarely in this country. The proprietors soon discovered that those services were rather a check to improvements; and they therefore now receive, instead of them, either a compensation in money, or an increased rent. The peasant finds also his account in this new regulation, as he is no longer obliged to keep any superfluous team of cattle, or more workmen than he can always employ.

What renders our husbandry somewhat expensive, are the great number of buildings which we are obliged to keep on our estates. Our climate is more rigorous than that of England, and in order to keep our cattle thriving, they want warm stalls and stables. Our dairies require large cellars, and comparatively expensive implements. Perhaps from prejudice we do not like to stack our corn in the open air. The many buildings on our estates, which have presented themselves to your eyes, will probably have excited your surprise. The buildings on my property are insured for 1,220*l.* sterling against fire, in the County Insurance Establishment: their first cost amounts to a much higher sum. The live stock, and implements of all kind, such as horses, cows, sheep, hogs,

carts, ploughs, harrows, dairy implements, seed grain, beds, &c. are worth about 430*l.* sterling.

In estimating the property at 2,600*l.* the value of the land, together with thirteen acres of wood, which alone is worth 350*l.* at least, would only be worth 950*l.* In the years, from 1800 to 1807, previous to the war, 5,200*l.* sterling had often been offered for it, now scarcely half this sum could be obtained. It is not easy to discover the whole of the causes of this decline in the price of estates; the chief cause is the decline of all agricultural produce. Secondly, the increased taxes, and their *unequal* distribution. Thirdly, the want of confidence in our landed property, arising from the arbitrary measures of government in the hypothecation system of the country, adopted for the purpose of establishing a bank. This has created an apprehension that similar measures for other views may be resorted to for other objects; finally, the practice of burdening landed property with all public institutions; for example, the Lunatic Asylum, the Deaf and Dumb Institution, the Veterinary School, and some others; the bad management of the concerns of the communes, and the most erroneous distribution of those taxes. The poor rates are not very considerable, at least not here, nor indeed in such other parishes where this expense is not made a compulsory tax, and where the poor system works in such a manner, that only real paupers, but no idle people are relieved. To your question respecting the taxes on each acre of land, I beg to remark, that those are extremely various, indeed so unequally divided, that it would be next to impossible to give even any general approximate view of them. Our survey is one of the worst in Europe. The difference existing in the taxation of lands of equal quality, is perhaps more than one hundred per cent. I estimate the taxes on good soil to be about 4*s.* an acre. To this inequality in the levying of taxes, it is owing that the fixed amount of them on landed property cannot serve as a standard of its value. There are farms, for instance, burdened with an equal amount of taxes, the one of which may be worth 85*l.* and the other 850*l.* sterling.

The rent varies naturally with the quality of the soil; here, in the eastern division of the duchies, it is chiefly the quality of the pastures that is considered as the guide to the annual rent, as also the capital which it is necessary to invest, in order to keep the farm constantly in good condition; other considerations operate equally on the rate of rent; for instance, whether the cultivation has been previously neglected, and whether the estate does or does not require a considerable outlay before it can remunerate sufficiently; in what condition the implements and live stock are, which the farmer generally receives on taking possession of the estate; whether the buildings are sufficiently large and conveniently built for the purpose? Where all this is found together, and where $1\frac{1}{2}$ acre yield plenty of food for one cow, there the rent of land would be about 16/4 the acre. In proportion as the less nutritive quality of the pastures operates upon the produce of the dairy,

the rent is gradually lowered to 13/6 an acre, and less; but that sum may be taken as the average rent. This is not, however, the net income of the proprietor, for he must pay out of it the taxes to government, the premium of insurance on the buildings against fire, their repairs, the taxes to the church and schools, the salary to the justiciary of the manor, and to his steward or inspector of the estate. After deducting all these expenses, the residue of the rent is often very trifling. The repair of the public roads and highways is a duty incumbent on the farmer. This labour occupies generally one team from 8 to 14 days annually. Owing to the system of compulsory corporations, or the want of free trade in this country, every work of artisans, as of smiths, wheelwrights, collar-makers, &c. is very high; besides, almost all the agricultural implements are still of a clumsy, unwieldy, and bad construction.

I keep on my property generally 50 cows, besides some neat cattle, and 20 sheep for the household. The sheep-breeding in the better districts of the country is of no moment. The rich pastures are considered to be unwholesome to the sheep. Neither can mutton be sold at a good price, on account of the excellent quality of our beef.

With regard to your question relative to the produce of our dairies, it must be observed, that a cow well fed, and which calves in the beginning of April, will yield 118 pounds of butter annually. If the winter food is rich and nutritious, the quantity will be still larger. The estimate of the produce of one cow, I give from the experience which I have of my own husbandry. In dairies where two to three hundred cows are kept, the value of the produce is larger, the consumption being proportionately so much less.

	lbs.			£.	s.	d.
Each cow yields	106	of summer butter at 6/62-100*d.*	.	2	18	4
	12	winter do at 5*d.* . . .		0	5	2
	127	cheese at 6/8 the 170 lbs.		0	4	7
Fattening certificate for every ten cows, worth 1*l.* 14*s.* 9*d.* each cow				0	3	6
Calves, per cow				0	3	6
		Net Produce		£3	15	1

This shows that the dairy must remain our chief object; and I am of opinion, that we find our account in it, as the other Germans do in their fine-wooled sheep. This peculiar system of our husbandry will also explain why we do not cultivate turnips like the English. We cannot use the turnips with the same advantage. The English apply them to fatten their cattle with them; but we have here such an abundance of fattened cattle, that there are sometimes scarcely buyers for all. The only markets for our fattened cattle are Hamburg and Lubeck, whereas bacon and hams are more exported than beef. During periods of little demand, the price of meat sinks often down to 14*s.* the hundred weight; 21*s.* is already a high price.

No. XXI.

COMMUNICATIONS from Sir CHRISTOPHER ECKARD, of Wittmoldt, in Holstein, accompanying the Answers of Count RANTZAU, and of Count HENRY VON HOLSTEIN, to some Queries proposed for their consideration.

(A.)

A MUCH longer period has elapsed since your departure from Holstein, before I could have the honour to address you, than I expected. No man in this country being better able to answer with perfect accuracy the questions on agricultural matters than Count Rantzau, at Rastorft, I forwarded them to him in a German translation, and have only lately received his reply, together with that of Count Holstein, at Waternevorshoft, another of our most intelligent and experienced agriculturists.

I therefore beg leave now to transmit,—

(A.) The original queries left by you, and Count Rantzau's reply in the German language, together with a translation, and an extract of Count Holstein's, as far as the explanations of both in any manner vary.

(B.) The statement of the average receipts and expenditure of a farm of 1,000 tonnes of land (Wittmolat), which I had the honour to present to you here, and a translation of the same, after having revised it, with a memorandum of explanations on the last page.

It would have afforded me the utmost satisfaction, more materially, Sir, to have been useful to you in the important and comprehensive investigation which engaged your attention here; that the result of your late laborious researches will contribute further to dispel groundless fears and illusions, is a gratification which you can only anticipate with pleasure.

The impression that the stock of grain on the continent was enormous, and would ruin the British grower when admitted in England, is of course laid aside, after it is clear that nothing worth the name remains of former harvests.

What quantity of the different species of corn, Denmark, Schleswic, and Holstein, belonging partly to the more productive countries of Europe, now produce for exportation, and fit for British markets, you are in possession of; their only principal, almost only exports, are butter, cattle, and horses. On this question, whether or not higher prices of corn can lead to a considerable increase of production, I have endeavoured, since I had the pleasure to see you, to collect the opinion of many of our experienced farmers, but one and all consider such an

increase as impossible. We cannot alter our system of letting our fields, during the rotation of 9 or 10 years, lie four or five years in pasture, without impairing the quality of our butter, which is considered as the securest part of our income; we adhere with the pertinacity usual to country people to established methods and customs, and it may perhaps be doubtful, whether a thorough change of system would be an improvement; our large tracts of waste land in the centre of the country, and extending to Skagen, are mostly sandy heaths, at least all incapable of bearing Wheat; and against forming new establishments, or extending those that exist, the large farming buildings, which our climate requires, offer a great obstacle; though as expensive as they are necessary, they hardly add to the value of a property when sold or purchased; for instance, the solely agricultural buildings, barns, cow-houses, stables, &c. at Wittmoldt, are estimated and insured against fire at 37,000 rix-dollars, about one-third of the value of the whole estate, and the fields and woods rated separately, are worth full as much as the whole property taken together. The one half of our estates are let to farmers for a term of from 8 to 12 years; these men never think of improvements. The proprietors who conduct their own farms in general want capital; indeed the ruinous effects of the low prices of corn during the last six or seven years, on the prosperity of continental farmers, are deeply felt, and show themselves equally in the diminished use of articles of commerce, such as colonial produce, cotton and woollen goods, &c., but I believe are not fully appreciated in England. To all these impediments against a material increase of production, we may add a moral and a very powerful one, the want of energy, activity, and intellect, which strongly mark the lower order of our country people, especially in the Danish Islands and Jutland.

If calculations are again formed in England according to the present prices, at what rate corn can be exported from the continent, they must evermore prove fallacious. We have considerably declined, certainly much below the rate of the costs at which we can produce, because we have now no opening for the surplus of our present harvest (which in quality proves rather inferior, in quantity moderate). The great fluctuations of the last and the present year followed, almost step by step, the exportations which the momentary state of the measure, then under discussion in your legislature, and the previous acts of your government, had raised; and they lead us to the infallible conclusion, that the prospect of a permanent admission into England, though under the controul of a scale of duties, will again revive speculation, which must remain dead as long as the present state of uncertainty exists, and fix the continental prices, in a certain degree, in proportion to yours. To maintain them steady with us, scarcely anything more is required than the bare facility of exporting to England; how much or how little actually is disposed of in that way is of no consequence.

(B.)—Estimate of the Expenses of a Farm of 1250 Acres

HIS EXPENSES.	£.	s.	d.	£.	s.	d.
Rent, a year, at the lowest rate of 14*s.* 1½*d.* the acre				882	7	1
Wages of labour, besides their cottage, garden, pasture, and food for one cow:						
To the labourers, during Summer, 8,82*d.* a day / Winter, 7,6 / Female labourer 7,6				211	15	4
Wages to hired servants, per annum:						
Two clerks, at 10*l.* 11*s.* 9*d.*	21	3	6			
Two overseers, 7*l.* 1*s.* 2*d.*	14	2	4			
Nine men to 36 horses, from 4*l.* 8*s.* to 5*l.* 8*s.*	44	2	4			
				79	8	2
Board and lodging thirteen men, at 8*l.* 16*s.* 6*d.* each				114	14	6
Artisans:—Blacksmith	49	8	3			
Wheelwright and materials	19	8	3			
Sadler and rope-maker	10	11	8			
				79	8	2
Annual renewal of stock, by contract, at 10 per cent.						
namely, 24 cows, at 3*l.* 3*s.* 6*d.*	76	8	0			
deduct, 24 old cows, at 14*s.* 2*d.* each	17	0	0			
	59	8	0			
Extraordinary renewal for cows lost during the year, 5 cows	15	7	8			
D°. d°. three horses, at 8*l.* 16*s.* 6*d.*	26	9	6			
				101	15	2
Clover seed, 900lb. at 3*d.* $\frac{51}{56}$ lb.				13	4	8
Insurance against fire on the implements and live stock 1270*l.*	6	7	1			
on the crops, straw and hay, 1412*l.*	7	1	2			
against hail 1412*l.*	2	12	11			
				16	1	2
Small repairs of the buildings				5	5	2
Incidental expenses				8	16	6
Expenditure				1512	15	11
Surplus to the farmer				53	10	10
				1566	6	9

Making—For rent, 14*s.* 1½*d.* per acre.
Expenses of cultivation, 10*s.* 1$\frac{7}{12}$*d.* d°.

Memorandum;—

No hay and straw is sold.

A few tonnes of land, planted in potatoes, and sown with flax-seed for domestic use, are not brought in deduction, because the expenditure for feeding the servants is calculated.

The cheese made from the skimmed milk, and the hogs fattened with the whey, belong to the dairyman (here named Hollander).

of Land of good Soil, and let to a Farmer.

HIS RECEIPTS.

The Farm contains 1,075 acres of arable land, besides the meadows, roads, walls, ditches, and gardens (the wood being reserved by the proprietor), and is divided, according to the usual method, in 10 fields of 107½ acres each, which are cultivated as follows:

			£	s.	d.
Wheat, 107½ acres, sown with 338 8/10 bushels of Grain, will yield . . 3,049 6/10 bushels; Deduct seed 338. 8. 1/10 thrashing 189. 1.	527. 9.				
	2,521. 7.	bushels, at 3s. 3d. 3/4 pence	414	2	4
Rye, . . 53¾ acres, sown with 169 4/10 bushels of Grain, will yield *net* . . 1,260 6/10 bushels, in the same proportion, at 2s. 11 1/5 d. d°			188	4	8
Barley, . 53¾ acres, sown with the same quantity, produce 1,260 8/10 bushels, at 2s. 5 1/3 d. d°			160	0	0
Oats, . . 215 acres, sown with 1,016 4/10 bushels of Grain, will yield . . 8,132 — bushels					
Deduct seed 1,016. 5. 1/16 thrashing 508. 2. Food, 36 horses 3,782. 4. D°. cows . 788. 0.	6,095 1				
Bushels . .	2,036 0 1/10	at 1s. 7¾d.	167	11	9
			930	6	9
Cows, 240 heads, rented at 2l. 13s. per head .			636	0	0
Receipts . .			1566	6	9

The expenditure and the return of the different sorts of Grain in quantity, are the result of my own five years' administration of my estate or farm, ending the 1st of May, 1826. The prices are assumed, to show the rate at which the farmer ceases to lose; having, in general, been considerably lower during those five years, it is clear that I have not made the same rent which the farmer now pays; good land in Holstein always rents at five to six rix-dollars (17/8 to 21/) per tonne (1¾ acre), though

sometimes, or often, at a loss to the farmer; this is partly owing to the number of young men brought up to agricultural pursuits being considerable, many of them possessing small capitals of from 3000 to 10,000 rix-dollars (500*l.* to 800*l.*) with which they may rent, but cannot purchase. A deposit of one year's rent is usual, as a security for the inventory, which belongs to the owner.

Count Rantzau, at Rastorft, expresses his entire agreement with the foregoing statement, observing only, that on some of his estates of a heavier soil, the expenses of cultivation come nearer to four rix-dollars (14/1) per 1 tonne (1¼ acre) of land.

Mr. Martens, at Rutzen, coincides perfectly with the statement.

Christ. d'Eckard.

Wittmoldt, 17 Nov., 1827.

The rod in Holstein is 16 feet Hamburg measure, consequently one tonne of land equal to 1¼ English acre.

From here four horses draw seven quarters of wheat, and are absent to Hamburg four days; the man receives six marks for the journey (7/1), and six bushels of oats.

(C.)

QUERIES PROPOSED.

1.—At what periods does the dairyman pay his rent for the use of the cows?

2.—Does the dairyman fatten pigs or make cheese of the skimmed milk?

3.—Are the repairs on the buildings erected at the cost of the owner, or of the occupier of the land?

4.—Who pays the premium of insurance against fire on the buildings, and the inventorium?

5.—What are the daily wages of a labourer in winter and in summer, when supplied neither with food, house, or firing?

6.—How much of the respective kinds of corn, viz. Wheat, Rye, Barley, and Oats, can be thrashed and cleaned by two men in one week?

7.—What extent of meadow grass can be mowed by two men in one week?

8.—What extent in clover or lucerne can be mowed by two men in one week?

9.—How many tonnes of land in Wheat, in Barley, in Rye, and in Oats respectively, can be cut, and bound into sheaves, by two men in one week, of six days?

10.—What extent of land is usually ploughed by two horses, when grass land is broken up the first time?

11.—What extent is ploughed in a day at the second or third time of ploughing?

12.—How many fudder of dung can be loaded, discharged, and spread on the land in one day, by the labour of two men?

13.—What descriptions of artificial grasses are sown with the Oats when the land is laid down to grass?

14.—How many hundred pounds of hay are usually made from a tonne of land, in the several years in which it continues in grass?

15.—How many inches deep is the land usually ploughed?

(D.)

REPLY to QUERIES on Agricultural Subjects, by W. JACOB, Esq. given by CHARLES COUNT RANTZAU, at Rastorft.

1.—THE period at which the dairymen (Hollander or Mayer Pachter) pay their rent, are differently stipulated by contract. In general the dairyman rents for only one year, under the stipulation of three terms of payment, viz. at St. Jacob's day 25th July, St. Martin's day 10th November, and 1st May. It is assumed, that the proceeds of his butter might pay his rent; and what he otherwise fabricates and raises, as cheese (made of skimmed milk), hogs, &c., defrays the expenses of his household, and others. He is supposed to have earned two-fifths of his rent at the first period by his grass butter, two-fifths at the second from the stubble butter, and one-fifth from winter butter.

2.—The skimmed milk is used for making cheese; what remains, or the scalded whey, for fattening hogs. On an average, the cows that are rented to a dairyman, including those that have not calved, and those that have prematurely lost their calves, will yield from 80 to 100 (or 85 to 106lbs. English) butter a piece, as they are then in general but indifferently fed. If, however, fed in winter by the proprietor, partly on grains, with an ample allowance of good hay, and the pastures equally as good in proportion to the winter feeding, they will give about 112lbs. each (120lbs. English). The undersigned has produced from a dairy of 180 cows, under his own direction, 131lbs. of butter (140lbs. English) from each cow.

3.—In general the proprietor is at the charge of the repairs of the buildings, excepting the smaller ones of window panes, locks, cleaning chimnies and stoves, which are taken over by the farmer.

4.—According to the general usage, the proprietor pays the premium of insurance against fire on the buildings; the farmer, on the whole inventory dead and alive, and on all which is produced or raised.

5.—Under the great difference existing in the daily wages of labourers, it may in general be assumed, that they vary for a man, according to the season of the year, from 8 to 12*s.* currency (7*d.* to 10½*d.*). In the winter months, until the sowing season, in spring, 8/ per diem (7 pence) during that time, and until the hay crop 9 to 10 (7$\frac{1}{2}$ to 8$\frac{1}{2}$ pence); during this and the corn harvest 12 (10$\frac{1}{2}$ pence); from that time till the winter corn is sown 10 (8$\frac{1}{2}$ pence); in the fall till November 9 (7$\frac{1}{2}$ pence). These wages, with which no food is given, apply only to the men living on the

estate, who can return to their home every evening. Most usually these people have either a dwelling, 3 to 3½ tonnes of land (3¾ to 4¾ acres), and 1 to 2 cords of wood for fuel, for which they pay from 10 to 15 rix-dollars rent (from 35*s.* to 52*s.* 6*d.* sterling), or they have only a dwelling, a garden and fuel, at a rent of from 4 to 5 rix-dollars (from 14*s.* to 17*s.* 6*d.*) The daily wages of the wives of these labourers are commonly in winter 6*d.* ($5\frac{5}{7}$ pence); in spring 8*d.* (7 pence); during harvest 10*d.* (8¾ pence.) Labourers not living on the estate receive higher wages, according to the local situation. Farms near to towns and large boroughs can easily procure labourers at a cheap rate. However, in general, non-resident labourers cannot be obtained for less than at 12 per diem (10½ pence), and during harvest not under 14 to 16 (1*s.* to 1*s.* 2*d.*)

6.—The quantity of corn thrashed and cleaned, depending not alone on its condition, how it has grown, whether it has had rain whilst standing in sheaves, and afterwards been carted thoroughly dry, but also on the dryness or moisture of the atmosphere while it is thrashed, no decided answer can be given to this question. Under circumstances in every respect perfectly favourable, it may be adopted, that two labourers will, in six working days, thrash about 10 tonnes of wheat ($39\frac{48}{100}$ bushels), 10 of rye ($39\frac{48}{100}$ bushels), 16 of barley ($63\frac{18}{20}$ bushels), 30 of oats (118 bushels), and screen it clean with the aid of a hand dust-mill.

7.—When the grass has grown tolerably well, two men will mow in a week 12 tonnes of land (15 acres) of 240 rods each.

8.—In common, five men will mow in one week from 14 to 16 tonnes of land (17½ to 20 acres), at 240 rods of clover. Lucerne is scarcely cultivated at all in Holstein.

9.—Two men will mow in six days 12 tonnes of land (15 acres) of 240 rods in wheat and rye; 18 tonnes (22½ acres) in barley and oats. It is to be observed, that the men never bind the corn into sheaves, this work being done by the women. Each mower is followed by a woman, who binds the corn into sheaves, immediately after the scythe; and, besides, one woman is placed to every three mowers to put up the sheaves into shocks, consisting of four sheaves each. The summer corn, barley and oats, is frequently bound up and placed into shocks only some days after mowing.

10.—Of grass land, when broken up the first time, two horses will plough about three-quarters of a tonne of land ($\frac{34}{100}$ acres) of 240 rods.

11.—On the second and third ploughing, about one tonne of land (one and one quarter of an acre of land).

12.—According to the practice of this country, separate men are placed to load the dung-carts, who do nothing else. The cartman drives the dung from the dung-heap to the field, and unloads the cart himself; strewing it is again performed by others. Only in this manner is it possible to keep the horses constantly in activity; by putting them, on their return home, to the ready loaded carts, where the cartman has

himself to load, they must lose much time in standing still. Two men can, in this way, load from 24 to 30 fudders of dung on the carts.*

13.—For the object of hay-making, principally red clover is sown on lighter soil; also ray grass (*Lolium perenne*), sometimes red and white clover, intermixed with ray grass. In later years, the *Phleum pratense* (Timothy grass), has been usefully cultivated. The same artificial grasses are cultivated for pasture grounds.

14.—About 3000lbs. (3200 English) of hay are made from a tonne of land (1¼ acre) the first year it lies in grass; in the following three or four years the same land remains in pasture.

15.—In general, very deep ploughing is not practised in Holstein, the proper fertile mould being but shallow. It may, therefore, be assumed, that the middling quality of soil is ploughed only three to four inches; the heavier six to seven inches deep.

(Signed) CHARLES COUNT RANTZAU.

Rastorft, Nov. 5, 1827.

(E.)

REPLY to QUERIES on Agricultural Subjects, by WM. JACOB, Esq., given by HENRY COUNT VON HOLSTEIN, at Water Nevershorft.

WHERE the cows are rented to a dairyman (Hollander), they may be estimated at giving 90 to 100lbs. (97 to 108lbs. English), of butter annually; but where the dairy is kept for account of the proprietor, at 100 to 120lbs. (108 to 130lbs. English), 112lbs. (121lbs. English), is considered a good return, and it is oftener less than more.

Grass-land being generally ploughed up in the short November days, five horses cannot break up much more than one-half ($\frac{1}{160}$ acres of land), or from 120 to 140 rods.

If the field is not at a great distance from the farm-yard, three carts, with four horses each, assisted by nine men to load, three cartmen, and three men to strew the dung, will each make twelves tonnes a day, consequently load, carry, and strew thirty-six fudders of dung in one day, one additional cart standing to load. Fifteen men being thus employed, 4$\frac{4}{5}$ fudder will be managed by two of them daily, and twelve fudders carried by each four horses.

When the land is sown in clover or ray grass, a tonne of land (1¼ acre of land) will give from 1,800 to 4,000lbs. of hay (1,950 to 4,300 English), the first year; in the succeeding years it is only used for pasture. Generally from four to six inches.

N. B.—Only the answers are translated, which in any manner give explanations varying from those given by Count Rantzau.

* The carts appeared to contain about one-fourth less than ours in England.

No. XXII.

Memorandum delivered to Mr. JACOB, Sept. 15, 1827.

AN estate in Holstein, near Lubeck, the property of Mr. Blohm, containing about 1,200 tons, or 4,800 scheffel (1,500 acres) 2/3ds. arable, 1/3d. pasture land, has been let on perpetual leases, some 70 years ago; the rent being fixed at the rate of 4 per cent. per annum, in the shape of perpetual interest, according to the value of land in those days; which rent or interest has been paid, and continues to be so, regularly, in half-yearly instalments, by the tenants, amounting in number to about thirty. The leases are renewed by the payment of a small fee to the landlord each time that a new tenant comes into possession; a good many of the original tenants, or their families, continue in possession to this day.

The rent thus produced amounts to about rix 4,800 (840*l.*) per annum; the government taxes, church, school and poor-rates, &c. &c., which all fall upon the tenants, though the landlord is held accountable to the government in the first instance, may amount to one-fourth more, say rix 1,200 (210*l.*) Thus, the tenants pay at the rate of about rix 5 per tor (15/ per acre) of land for rent and taxes, independent, however, of their farming stock, as horses, cows, &c. &c., which, being their own, must of course enter into the account.

Independently of the above-named tenants, the place contains from 50 to 60 more housekeepers and cottagers, who have each a small quantity of garden land allotted to them, and who gain their livelihood, some as manufacturers, others as day-labourers, &c. &c. The whole population at present amounts to about 1000 souls.

The estate has its own jurisdiction, under a judiciary (lawyer), who, with the sanction of government, is appointed and salaried by the landlord for life.

They measure land in Holstein by the quantity of seed sown in a given space, and value their estates accordingly.

The measure consists in lasts of 24 tons each, or 96 scheffel, a scheffel being equal, as near as possible, to a bushel Winchester measure.

On average land they generally sow one scheffel of rye, wheat, and other grain in proportion, over 60 □ roods, of 15 feet each. In inferior soil, it requires sometimes five, sometimes 15 roods more of pasture land; double the quantity, say 120 □ roods, are allowed to a scheffel in the admeasurement of lands.

A rix dollar is equal to about 3/6 Hamburg currency, being at the present exchange.

Letter in Explanation of some Parts of the Preceding Memorandum.

It is with the greatest pleasure that I reply to your questions, as contained in your note of 17th instant; and, if I have delayed this for a time, it is merely because I wish to collect all the information I could on the subject, being aware that your object would be best attained by making it as general and correct as possible.

1st, As to thrashing:—Two men, if they work well, which in this instance their own interest would prompt them to do, may thrash in a day from 10 to 12 scheffel of wheat and rye.

Some men will work better than others, and in some years the grain will come out more freely, or yield more abundantly than in others, but I have taken the average as near as it can be got at.

12 — 14 Barley.
18 — 20 and sometimes more of oats,
meaning the Rostock scheffel.

2nd, Wages:—They are never paid in cash in this neighbourhood, but the men invariably receive the 13th scheffel of corn; further in the interior, they receive only the 15th, or even the 17th scheffel; in all cases this scheffel is *heaped*, which makes it about one-seventh or one-eighth part more than common measure. This, to be sure, is but indifferent remuneration for hard labour, particularly if wheat and rye predominate, and continue as they have done for some years past, at almost equal prices of barley and oats; but the same men, being constantly engaged upon the same farms, are content to take the good with the bad or indifferent.

3rd, Mowing:—This varies so much, according to the physical strength of the person employed, the nature of the ground, and the season of the year, that it cannot be ascertained with the same exactness as other labour. In the longest days, one man, if he be a good labourer, will mow from five to six scheffels of land 1 a 60 □ roods each 1, of either grass or clover (though rather less of the former), and the same person will mow the same quantity of either wheat or rye in a day, provided his mate shall be equally expert in binding the sheaves as fast as the former mows it down. But if either barley or oats, he will cut less, say from four to five scheffels, at most in a day; because at this work he is left to himself, and has to smooth down the swarth as he proceeds; the custom with us being the same as I believe it to be in England, viz. to bind wheat and rye into sheaves at once, but barley or oats only the third or fourth day, as the weather permits.

When labourers are hired for the harvest, they generally begin their work with hay-crops, about the middle of June, and have seldom done before the middle of September, including the second crop of hay, being a period of 13 weeks and upwards, for which they would receive, besides eating and drinking, about 18 or 20 marks in cash (thus little more than

about one pound, H. c. say 1/6 per week) and would have to work Sundays, as well as every day of the week, if required by their employer, which, I am sorry to say, is but too often the case. If any extra or chance labourer should be wanted, besides the usual complement of men, in that case the employer would have to pay from 18*d.* to 20*d.* per diem during harvest time, and the man so employed to find his own victuals. But at other seasons plenty of labouring men are to be hired at half these wages, and during the winter season they will work for 6*d.* a day, finding their own victuals. This applies to the generality of work; as to my own labourers, I have made it a rule from the beginning to pay them at the rate of 10*d.* in the summer, and 8*d.* in the winter, which contents them and me. For, though I have no regular farm of my own, I have a large garden, with adjoining pleasure-grounds (in all about 120 of our scheffels) which being newly laid out and planted with shrubs, require a constant care. I believe I mentioned to you, in conversation, that our farmers would plough, with two horses, six scheffels of land in a day. This certainly may be done, and is done at times; but on an average, I would not state more than from four to five scheffels, and should be glad to know if your agriculturists and their cattle work harder or not. Some of my people are of a prodigious strength, indeed in particular two of those that I am in the habit of employing will mow eight scheffels of land, where others must give in with five, and other work in proportion. Now, as to the division of land on my estate, it is, as near as I can give it, at the following rate:

Only 13 tenants farm 100 acres and upwards
8 . . from 60 to 70 acres,
and the remainder, say 15 . . . 40 to 50 d°.
} in all about 1500 acres.

Having now, as I believe, fully replied to your inquiries, I have only to request, that you will make free with me whenever you wish for any similar or other information, as it will afford me real pleasure to employ my pen in your service.

In hopes that the lovely weather which we have enjoyed ever since your departure, may accompany you through your tour in Holstein, and thus contribute to make it more pleasant to you.

I am, &c. BLOHM.

No. XXIII.

Charges at Hamburgh on Wheat, Rye, Barley, Oats, Pease, Beans, and Tares.

Receiving	per last	Cts.	0 12
Brokerage	—		1 0
Metage	—		1 0
Porterage, depending on the distance and height of the loft	—		2 8
Lighterage to granary	—		1 0
Petty charges	—		0 10
		Cts.	6 14
	c. 23 %	R.	5 10
at the Exchange of 36/ or per quarter, 9 pence.		£.	8/4

Delivering from granary	per last	Cts.	0 12
Metage	—		0 12
Porterage, depending on the distance and height of the loft	—		2 8
Lighterage on board	—		1 8
Petty charges	—		0 10
		Cts.	6 2
	c. 23 %	R.	5 0
at the Exchange of 36/ or per quarter, 8 pence.		£.	7/5

Monthly Expenses.

Warehouse rent	per last	Cts.	1 0
Turning and working	—		0 8
		Cts.	1 8
	c. 23 %	R.	1 4
at the Exchange of 36/ or per quarter, 2 pence.		£.	1/10

Screening, if required . . . per last. Cts. 0 12
Winnowing, ditto . . . — 2 0
Fire insurance and stamp, ¼ per cent per year.

HENRY CANNING, Consul General.

No. XXIV.—An Account, showing the Monthly Expense of Storing Grain; namely, Wheat, Rye, Barley, and Oats, as accurately as can be ascertained in each of the Ports in the District of His Majesty's Consul General at Hamburg, including cost of placing it in, and taking it out, of the Warehouses for Exportation.

PORT.	Expense of Storing Grain per Quarter per Month.	Cost of placing Grain in Store per Quarter.	Cost of taking Grain out of Store, for Export, per Quarter.	REMARKS.
Hamburg . .	2 pence sterling	9 pence sterling	8 pence sterling	Including Metage, Lighterage, Portage, &c.; but exclusive of charge for Screening, Winnowing, and Fire Insurance.
Bremen . . .	2 pence sterling	6 pence sterling	5 pence sterling	Fire Insurance included.
Lubeck . . .	2 pence sterling	4 to 5 pence ster.	10 to 13 pence ster.	——
Rostock . . .	2 pence sterling	3½ pence sterling	3 pence sterling	Exclusive of charge for Screening, and of Shipping Charges and Customs Dues.
Wismar . . .	2 pence sterling	3 pence sterling	3 pence sterling	Inclusive of expense of Turning, but exclusive of Custom and Town Dues, and Shipping Charges.
Kiel	2 a 2½ pence sterl.	3 pence sterling	3 pence sterling	Inclusive of Shipping Charges.
Tonning . . .	2 pence sterling	3 pence sterling	4 pence sterling	Including Turning.

HENRY CANNING, Consul General.

No. XXV.—Return of the Imports and Exports of Grain at Hamburg, and of what remained on hand, from the Year 1818 to September 1827.

IMPORT OF WHEAT.

	From Sea.	By Craft descending the Elbe from Anhalt, &c.	By Craft ascending the Elbe.	From Holstein by Land.	TOTAL.
	Imp. Qrs	Imp. Qrs.	Imp. Qrs.	Imp. Qrs.	Imp. Qrs.
Anno . . . 1818 .	4,818	179,124	13,365	5,698	203,005
1819 .	1,419	80,190	11,814	6,226	99,649
1820 .	10,351	111.749	15.048	12.419	149,567
1821 .	7,293	70 708	17.985	8,525	104,511
1822 .	7,568	54,010	4,389	7,381	73.348
1823 .	10,175	63,426	11,572	11.275	96,448
1824 .	4.895	84 689	15.906	6.689	112,189
1825 .	3,091	142.494	11,286	4,191	161,062
1826 .	——	135.993	9,394	4,466	149.853
to September 1827 .	2,156	66,308	5.995	6,182	80.641
Total .	51,766	988,691	116,754	73,062	1,230,273

IMPORT OF RYE.

Anno . . . 1818 .	85,987	28,622	3,553	2,684	120,846
1819 .	24,739	25,300	1,683	6.677	58,399
1820 .	6 853	23,122	1,782	12,727	44,484
1821 .	2,882	18,843	4,741	11,275	37,741
1822 .	1,419	28,182	4.708	12,837	47,146
1823 .	8,349	19,393	4,565	9,240	41,547
1824 .	1,199	31,196	2,574	13.849	48,818
1825 .	110	42.977	1,034	9,449	53,570
1826 .	1,958	34,617	1,639	8,063	46,277
to September 1827 .	12,727	16,687	1,375	4,675	35,464
Total .	146,223	268,939	27,654	91,476	534,292

IMPORT OF BARLEY.

	From Sea.	By Craft descending the Elbe from Anhalt, &c.	By Craft ascending the Elbe.	From Holstein by Land.	TOTAL.
	Imp. Qrs.	Imp. Qrs.	Imp. Qrs.	Imp. Qrs.	Imp. Qrs.
Anno . . . 1818 .	3,476	35,299	14,146	4,697	57,618
1819 .	1,694	72,644	5,951	3,300	83,589
1820 .	1749	6,908	9,317	4,488	22,462
1821 .	902	6,094	11,803	5,214	24.013
1822 .	1,100	8,206	12,188	3,344	24,838
1823 .	561	4,730	12,606	1,870	19,767
1824 .	1,122	51,887	9,328	2,519	64,856
1825 .	1,254	119,394	11,374	3,014	135,036
1826 .	154	34,584	6,589	1,331	42,658
to September 1827 .	——	29,821	5,236	462	35,519
Total .	12,012	369,567	98,538	30,239	510,356

IMPORT OF OATS.

Anno . . . 1818 .	1,210	17,589	35,057	1,045	54,901
1819 .	2,112	8,052	22,979	1,793	34,936
1820 .	187	6,996	40,183	3,201	50,567
1821 .	. .	4,213	38,005	6,446	48.664
1822 .	. .	6,919	57,475	4,037	68,431
1823 .	825	6,578	26,169	2,420	35,992
1824 .	110	13,684	28,149	6,182	48,125
1825 .	. .	17,149	23,562	3,179	43,890
1826 .	. .	62,513	33,792	9,834	106,139
to September 1827 .	550	63,470	9,251	4,444	77,715
Total .	4,994	207,163	314,622	42,581	569,360

TOTAL IMPORT OF WHEAT, RYE, BARLEY, and OATS.

		Imp. Qrs.
Anno	1818 . . .	436,370
	1819 . . .	276,573
	1820 . . .	267,080
	1821 . . .	214,929
	1822 . . .	213,763
	1823 . . .	193,754
	1824 . . .	273,988
	1825 . . .	393,558
	1826 . . .	344,927
to September	1827 . . .	229,339
Total		2,844,281

The preceding Account—*continued.*

EXPORTS.

—	ENGLAND.				FRANCE.				SPAIN.			
	Wheat	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.
	Imp. Qrs	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*
1818	138,083	4,103	45,595	13,123	—	1,650	—	—	7,810	4,950	561	—
1819	30,206	1,298	57,816	1,584	—	—	—	—	5,500	—	—	165
1820	53,020	275	4,422	20,020	2,068	—	—	—	8,701	—	—	66
1821	13,200	—	3,344	5,742	—	121	—	—	4,686	—	1,672	—
1822	1,265	572	517	—	528	—	561	—	4,818	88	1,815	22
1823	12,188	2,761	1,397	253	2,013	—	473	253	17,710	1,474	1,408	495
1824	6,611	1,584	29,150	19,712	—	—	—	—	6,160	1,958	5,423	792
1825	51,414	726	96,899	7,150	869	—	—	—	10,043	1,848	10,219	319
1826	87,967	5,445	18,986	82,060	—	2,145	—	—	1,914	275	4,235	—
Till Sept. 1827	9,581	319	14,311	49,126	1,023	—	—	—	12,408	—	616	286
Total .	403,535	17,083	272,437	198,770	6,501	3,916	1,034	253	79,750	10,593	25,949	2,145

The preceding Account—*continued.*

	AMERICA.				NORWAY.				HOLLAND.			
	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.
	Imp. Qrs.	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*	*Imp. Qrs.*
1818	—	—	—	—	—	825	—	—	1,309	682	440	341
1819	—	—	—	—	—	352	—	—	220	—	—	—
1820	—	—	—	—	—	—	—	—	1,694	561	—	—
1821	—	—	—	—	—	—	—	—	1,243	—	220	—
1822	—	—	—	—	—	—	44	—	1,540	528	—	—
1823	385	—	451	319	—	825	352	—	2,420	2,728	1,727	341
1824	1,320	—	—	275	—	—	—	—	264	363	154	—
1825	44	—	—	66	—	—	220	—	121	44	—	—
1826	—	—	22	66	—	1,133	—	—	418	528	99	352
Till Sept. 1827	—	—	—	308	—	—	264	—	143	110	—	165
Total .	1,749	—	473	1,034	—	3,135	880	—	9,372	5,544	2,640	1,199

	BREMEN.				BY THE ELBE, AND BY LAND.				Total of Wheat, Rye, Barley, and Oats exported to the before-mentioned Countries.
1818	—	2,090	—	—	13,079	46,739	8,140	18,491	308,099
1819	220	462	—	—	13,761	34,342	10,241	9,350	165,517
1820	—	—	—	—	16,313	10,780	4,433	7,238	129,591
1821	—	330	—	—	16,335	8,470	4,081	7,304	66,748
1822	165	715	—	—	12,320	9,460	6,809	25,751	67,518
1823	—	187	—	—	14,388	11,726	4,059	21,868	102,201
1824	—	297	—	2,277	15,246	9,559	11,165	13,112	125,224
1825	—	110	—	—	26,202	18,139	14,047	8,767	247,247
1826	—	—	—	—	23,276	17,369	6,765	14,707	267,762
Till Sept. 1827	—	220	—	—	23,562	13,409	7,689	7,733	141,383
Total -	385	4,411	—	2,277	174,482	179,993	77,429	134,321	1,621,290

and the Quantity Imported and

ABSTRACT OF EACH SORT OF GRAIN.	Imperial Quarters.
Wheat on hand in 1817 . .	16,500
— Imported from 1818 till September 1827 .	1,230,273
	1,246,773
— Exported from do. . .	675,774
— Home Consumption do.	501,930
— Remains on hand do. .	69,069
	1,246,773
Rye on hand in 1817 . . .	31,009
— Imported 1818 to 1827 .	534,292
	565,301
— Exported from 1818 to September 1827 .	224,675
— Home Consumption do.	334,620
— Remains on hand in 1827	6,006
	565,301
Barley on hand in 1817 . .	12,650
— Imported from 1818 to September 1827 .	510,367
	523,017
— Exported from 1818 to September 1827 . .	380,930
— Home Consumption do.	136,675
— Remains on hand in 1827	5,412
	523,017
Oats on hand in 1817 . . .	1,210
— Imported from 1818 to	[illegible]

YEARS.	Hamburgh	Bremen	Lubeck	Rostock	Wismar	Kiel	Tonning	Remarks.—

No. XXVII.—A Return of the Quantity of Corn Shipped at Hamburgh in British Vessels, in the Year 1826.

Wheat . . .	8,800	Quarters.
Barley . . .	16,240	Quarters.
Oats . . .	107,000	Quarters.
Flour . . .	4,500	Barrels.

HENRY CANNING.
Consul General.

No. XXVIII.—An Account of the Quantities of the several Descriptions of CORN, namely, WHEAT, RYE, BARLEY, OATS, of the Growth of any Year prior to the Harvest of 1827, in the Storehouses at the several Ports within the Consulate of Hamburgh.

Ports.	Wheat.	Rye.	Barley.	Oats.	Remarks.
	Qrs.	*Qrs.*	*Qrs.*	*Qrs.*	
Hamburgh . .	25,000	5,800	5,500	2,800	
Bremen . . .	22,000	20,000	. .	. .	The quality of this Wheat is inferior. The Rye will be wanted chiefly for home consumption. Barley and Oats, little or none remaining.
Lubeck . . .	24,000	3,600	3,600	1,400	
Rostock . .	25,000	7,000	. .	. .	Of Oats and Barley no old stocks remain, as they have been shipped in the course of this year. It is generally believed, that with the exception of Wheat, no old Grain is stored by the farmers in the country.
Wismar . .	10,000	. .	. .	. .	No quantities of Rye, Barley or Oats, remain, nor any stocks of old Corn in the hands of the farmers.
Kiel	5,500	. .	. .	. .	No other stock of any kind of Grain left in hand; and these 5,500 quarters of Wheat have a few weeks since been bought for Holland and Hamburgh.
Tonning . . .	9,000	1,500	1,500	1,200	Most part of this Wheat has been shipped to Holland and Hamburgh in the last two months.
Oldenburgh .	none.				

Hamburgh, 9th November, 1827.

HENRY CANNING, Consul General.

No. XXIX.—An Account of the Imports and Exports of Corn at the Port of Kiel, for each of the Years 1817 to 1827.

Export.—The former Winchester Quarter.					Where to.	Imports.
Years.	Wheat.	Rye.	Barley.	Oats.	Chiefly to	None since several years, except from the Danish Islands, which are considered as home production.
1817	11,237	10,464	27,744	27,244	England, Holland, Hamburgh, and Bremen.	
1818	25,405	10,426	46,271	17,787	D°.	
1819	6,794	45	26,389	4,185	D°.	
1820	27,116	1,752	18,174	18,203	D°.	
1821	17,708	4,259	16,327	2,572	Holland, Hamburgh, Bremen, &c.	
1822	9,038	3,008	12,058	450	D°. d°. d°. d°.	
1823	10,461	3,875	7,095	725	D°. d°. d°. Portugal.	
1824	3,780	1,625	19,045	16,210	England, Holland, Hamburgh, &c.	
1825	11,657	1,507	55,824	5,338	D°. d°. d°. Portugal, &c.	
1826	25,011	1,439	30,668	23,778	D°.	
1827	20,000	—	10,000	25,000	D°. Holland.	

Kiel, 1*st January*, 1828.

HENRY CANNING, Consul General.

SAM. LEA,
His Britannic Majesty's Vice Consul.

The official Return of Exports of the above mentioned Articles in the preceding year, 1827, are not yet known to me, but is filled by the best Estimate I could make, and expect it will be nearly correct.

Kiel, 1*st January*, 1828.

SAM. LEA.

No. XXX.—An Account, showing the Quantity of Wheat, Rye, Barley, and Oats, under Bond on the 1st of October in each Year, from 1819 to 1827 inclusive, in all the Ports of Great Britain.

	Quantities remaining in Warehouse in Great Britain.				
	WHEAT.	RYE.	BARLEY.	OATS.	Total of the preceding Species of Corn.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
On 1st October 1819	The quantities of grain remaining under bond on the 1st. Oct. cannot be stated for these years.				
—— 1820					
—— 1821					
—— 1822	625,546	7,089	51,335	146,104	830,074
—— 1823	508,005	3,352	47,933	156.688	715,978
—— 1824	464,062	4,158	17,625	23,350	509,195
—— 1825	251,446	3,556	239,382	120,747	624,131
—— 1826	324,076	—	29,566	128,785	482,427
—— 1827	197,546	7,322	70,245	12,618	288,131

Inspector General's Office, Custom House, London, 14th February 1828.

WILLIAM IRVING.

No. XXXI.—An Account, showing the Quantity of Wheat, Rye, Barley, and Oats, Exported from Great Britain, in each Quarter, from 5th July 1827 to 5th January 1828.

	Quantities Exported from Great Britain to Foreign Ports.		
	In the Quarter ended 10th Oct. 1827.	In the Quarter ended 5th Jan. 1828.	Total from 5th July 1827 to 5th January 1828.
	Qrs.	Qrs.	Qrs.
Wheat	6,316	15,349	21,665
Rye	3,856	2,578	6,434
Barley	7,204	11,629	18,833
Oats	2,384	6,447	8,831
Total of the preceding descriptions of Corn	19,760	36,003	55,763

Inspector General's Office, Custom House, London, 14th February 1828.

WILLIAM IRVING.

No. XXXII.—An Account, showing the Quantity of Wheat, Rye, Barley and Oats, admitted from Foreign Countries, and from the Colonies, to Home Consumption, in each year, from 1819 to the latest Period to which it can be made up.

	QUANTITY ADMITTED TO HOME CONSUMPTION IN GREAT BRITAIN.				
	Wheat.	Rye.	Barley.	Oats.	Total of the preceding description of Corn.
1819. From	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Foreign Countries ..	108,298	17,293	362,994	523,490	1,012,075
The British Colonies	7,576	.....	1,018	25	8,619
All Parts.....	115,874	17,293	364,012	523,515	1,020,694
1820. From					
Foreign Countries ..	2,080	.....	.....	726,842	728,922
The British Colonies	24,417	.....	.....	6	24,423
All Parts	26,497	.....	.....	726,848	753,345
1821. From					
Foreign Countries ..	2	.....	.....	.....	2
The British Colonies	—	—	—	—	—
All Parts.....	2	.....	.....	.....	2
1822. From					
Foreign Countries ..	2	.....	.....	.....	2
The British Colonies	—	—	—	—	—
All Parts	2	.....	.....	.....	2
1823. From					
Foreign Countries ..	—	—	—	—	—
The British Colonies	10,652	.....	.....	.....	10,652
All Parts.....	10,652	.....	.....	.....	10,652
1824. From					
Foreign Countries ..	.....	.....	39,263	619,340	658,603
The British Colonies	14,829	.....	.....	.....	14,829
All Parts	14,829	.....	39,263	619,340	673,432
1825. From					
Foreign Countries ..	372,918	3,442	270,678	15	647,053
The British Colonies	123,427	.....	.....	.....	123,427
All Parts.....	496,345	3,442	270,678	15	770,480
1826. From					
Foreign Countries ..	268,234	67,241	332,641	1,184,824	1,852,940
The British Colonies	28,999	.....	.....	.....	28,999
All Parts	297,233	67,241	332,641	1,184,824	1,881,939
1827. From					
Foreign Countries ..	511,344	21,887	236,991	1,850,431	2,620,653
The British Colonies	49,667	.....	.....	372	50,039
All Parts	561,011	21,887	236,991	1,850,803	2,670,692

Inspector General's Office, Custom House, London,
14th February, 1828.

No. XXXIII.—An Account, showing the Quantity of Wheat, Rye, Barley and Oats, Imported into Great Britain, and Bonded, in each Quarter, from 5th July 1827 to 5th January 1828.

	QUANTITIES IMPORTED AND WAREHOUSED IN GREAT BRITAIN.		
	In the Quarter ended 10th October 1827.	In the Quarter ended 5th January 1828.	Total from 5th July 1827, to 5th January 1828.
	Qrs.	Qrs.	Qrs.
Wheat	90,161	13,318	103,479
Rye	10,318	.....	10,318
Barley	79,195	1	79,196
Oats	31,921	26,073	57,994
Total of the preceding descriptions of Corn.	211,595	39,392	250,987

Inspector General's Office, Custom House, London, 14th February 1828.

WM. IRVING.

No. XXXIV.

An Account of the Quantities of WHEAT, RYE, BARLEY, and OATS, Imported into the United Kingdom from the Hanseatic Towns, from 1817 to 1826, both Years inclusive, distinguishing each Year.

YEARS.	WHEAT.		RYE.		BARLEY.		OATS.	
	Qrs.	*bus.*	*Qrs.*	*bus.*	*Qrs.*	*bus.*	*Qrs.*	*bus.*
1817	49,376	4	12,890	5	12,795	1	63,918	0
1818	160,594	4	2,660	2	76,691	6	71,396	7
1819	32,356	0	410	6	79,206	1	7,977	0
1820	55,942	2	—		5,983	7	52,512	5
1821	11,559	3	—		2,416	3	16,022	2
1822	806	1	—		2,673	6	6,060	4
1823	1,078	6	—		—		2,135	6
1824	3,846	6	847	3	7,808	5	88,923	7
1825	52,113	7	—		135,155	1	20,660	7
1826	100,326	7	8,329	7	50,337	4	162,777	3

Inspector General's Office, Custom House, London, 11th December 1827.

WM. IRVING.

No. XXXV.

Report of the Board of Taxation, to the Cabinet Council of HIS MAJESTY, respecting the Extent of Tillage Land cultivated during the Period from the year 1817 to the year 1826.

Hanover, November 5th, 1827.

ANXIOUS as we are of forwarding, in obedience to your honourable order of the first of this month, a return of the number of acres of

tillage land which had been under cultivation, during the period from the year 1817 to the year 1826, in the Principality of Calenberg, in the Counties of Hoya and Diepholz, and also in the Principality of Osnabrück, we see ourselves nevertheless placed under the necessity of respectfully representing to your Excellencies, that the documents at our disposal are not sufficient to enable us to give with accuracy, and for each year, separately, the returns called for.

The tax-rolls, which formed, from the first of November 1817 till June 1826, the provisional basis of the hearth duty, and the monthly contributions in the Principality of Osnabrück, and of the matricular tax, in the Counties of Hoya and Diepholz, afford no information as to the proportion of tillage land which was then under cultivation. Even from the Westphalian land-tax rolls, in the Principality of Calenberg, no certain result can be obtained, as they have been compiled from the declarations (of the proprietors and occupiers), omitting to distinguish gardens from arable land, or to give the necessary items of fallow and waste lands.

We are not acquainted with the object for which your Excellencies require those returns. But should this have been done with the view of ascertaining the approximative production of corn in those provinces, perhaps the information respecting the new general land-tax, which it is actually in our power to give, and which shows the superficial extent of the landed property, might tend to afford such a calculation.

From the papers of the former commission of the central land-tax, it appears that that body had laid down the superficial extent of tillage land to be as follows:—

The Province of Calenberg:

Tillage land			556,240 acres.
Besides fallow	29,615	acres	
— waste land	11,631	—	
— lay land	5,881	—	
— tillage land, exempt from taxation	15,833	—	
			62,960 —
Making together			619,200 acres.

The Counties of Hoya and Diepholz:

Tillage land			448,888 acres.
Besides fallow	4,158	acres	
— waste land	7,255	—	
— lay land	7,740	—	
— arable land, exempt from taxation	7,714	—	
			26,867 —
			475,755 acres.

Brought forward . .		475,755 acres.
To which must be added,—		
The inclaved lands of Hessia		31,688 —
Besides waste land	1,904 acres	
— lay land	252 —	
— land exempt from taxation .	372 —	
		2,528 —
		509,971 acres.
The Principality of Osnabrück:		
Tillage land		394,093 acres.
Besides lay land	16,711 acres	
— exempt from taxation . .	5,604 —	
		22,315 —
		416,408 acres.

Bentheim, Emsbuhren, Lingen, and Mappen, are not comprehended in this statement.

However, this account of the superficial extent of arable land, which was taken as the basis to the calculations, when the new general land-tax had been introduced, ought not to be considered as if it were showing with accuracy the exact quantity of arable land actually cultivated. A term of five years having been granted by the Royal ordinance of the 3d of June 1826, to those who have to make representations against the amount of the tax with which they have been charged, and the rectifications which are still to be made, will still produce some alterations; besides the above statement comprehends all the gardens and pastures, and also such lands as are alternately applied to tillage or pasture have been designated after the mode of cultivation which was most prevalent on them, without any regard to the different relations of cultivation existing between them.

From the returns which we possess, it will be impossible to bring separately the extent of the superficies of the gardens, the pastures and arable lands, under different heads, unless a minute survey be hereafter undertaken; the estimate having been made indiscriminately, as the prevailing mode of cultivation of the soil then was, without any reference to the relation which one mode of cultivation bears to the other, and which, indeed, did not bear upon the object of taxation itself.

The said statement can therefore only serve to afford approximatively an estimate of the extent of arable land, after deducting a certain portion, consisting of gardens and pastures; but it is totally impracticable for the purpose of obtaining a retrospective view of the extent of tillage-land that had been actually under cultivation from 1817 to the year 1826; for besides the difficulties to which we have already adverted, no documents can be found, from which any information might be collected respecting the rotation of the fallow in those districts where this method is applied,

or its application to sowing, nor the use made of the waste lands, or the periods at which virgin-land was brought under cultivation, previous to the time when the present land-tax came into operation.

We beg, therefore, most respectfully, that your Excellencies will be pleased to discharge us from the duty of laying before you an account of the extent of arable land under cultivation in the said years, as required by your rescript.

We are unable to furnish such returns for the former years, and even those which might be executed subsequent to the introduction of the new land-tax cannot be given, unless a local survey has been made, and which it is not in our power to do.

(Signed) *Schele. Dommes. C. Baring. Schulze. Eichhorn. Ifland.*

The Royal Supreme Board of Taxation.

No. XXXVI.—Census of the Population of the Kingdom of Hanover in the Year 1816, and the Year ending 31st December 1826.

Districts.	Population. 1816.	Increase.	Population. 1826.
Hanover . .	274,336	35,405	309,741
Hildersheim .	298,339	37,723	336,062
Lüneburg . .	263,880	30,867	294,747
Stade . . .	207,212	23,023	230,235
Osnabrück . .	226,101	25,964	252,065
Aurich . .	140,348	16,189	156,537
Harz . . .	23,910	3,403	27,313
	1,434,126	172,574	1,606,700

No. XXXVII.—Report of the Board of Customs to the Cabinet Council of His Majesty, relating to the Importation and Exportation of Corn.

Hanover, 16th of January, 1828.

In obedience to the supreme order of the 16th of October last year, which had been transmitted to us, we have carefully directed our attention to the mode of compiling from the documents we can command, a correct account of the quantities of wheat, barley, rye and oats, that had been imported and exported annually into and from the kingdom during the ten years, from 1816 to the year 1826.

Having been ourselves aware, from the beginning, of the impossibility

of executing such a task, were it even to be done with but little accuracy, we have since been supported in our opinion by the respective custom officers to whom we addressed our inquiries, and all of whom agree in stating, that such returns cannot be furnished.

1.—Previous to the 1st of October 1825, being the period when the new system of frontier custom houses was first introduced, the customs in a very great part of the country had been farmed out, and we are therefore without any documents from which such accounts could be collected.

2.—But even in that part of the country where the duties were then collected by the government, as was the case in Bentheim, the papers relating to this branch are deficient in information, no registers having been kept; but the accounts were made out in like manner as those of the high road tolls, and consisted only in custom tickets.

3.—Under the system which formerly prevailed in most of the provinces, the goods which entered the custom houses were generally free, and paid only the duty when leaving those establishments.

4.—In many other custom houses the duties were levied on the waggon load itself, according to its weight or the number of horses, without any reference to the goods, except some articles, under which corn was generally not comprehended.

5.—There existed besides a great number of exemptions from duties, among others the royal domains and the estates of the nobility, the effect of which was also particularly sensible in the exportation of corn.

6.—Under the former system of internal custom houses, the goods imported into the kingdom paid, as has already been mentioned, no duty at their entrance. This circumstance alone renders it impossible to distinguish the quantity of foreign corn exported from that of home growth.

These remarks are, we believe, sufficiently convincing, that, up to the 1st of October 1825, no accounts can be derived from the registers of the custom houses on which any reliance could be placed.

It is otherwise with the period subsequent to the introduction of the tarif system on the frontier custom houses. But from the following remarks, your Royal Highness and your Excellencies will graciously observe, that even here the object of the inquiry cannot be sufficiently obtained.

All the information which can be given consists of,

Firstly, An account of the quantities of all kinds of grain of which entry has been made in the registers of the custom houses, at their importation into the kingdom.

Secondly.—An account of the quantities exported from the principal custom houses on the frontiers, and registered in the books thereof.

However, no account of the total quantities of grain, actually exported from the country, can be furnished; the exportation of corn being by law made free from any duty, no restriction has been laid with regard to places from whence it may be sent out of the kingdom. Neither is it possible to distinguish, under separate heads, the quantities of foreign corn that passed the country as transit, from the exported corn of home growth. The drawback granted on certain roads to foreign corn, as its re-exportation, might only serve to ascertain the quantity of foreign corn yet remaining in the country as transit. But even this cannot be accomplished with a pretension to accuracy, the drawback showing less the identity of the foreign corn, than only the fact, that the quantity of corn exported, whether of foreign or home growth, and on which a drawback has partially been allowed, did not exceed the quantity imported from abroad. This is owing to the circumstance, that no control is put on the identity of the foreign corn when imported, and home-grown corn can, therefore, be substituted for it at the exportation.

Under these circumstances we are only restricted on laying before your Royal Highness and your Excellencies, an account of the quantities of foreign corn, imported from the 1st of October, 1825, to the 1st of October 1826, and also of the quantities exported during the same period, and of which declarations have been made in the registers of the custom houses.

Custom Districts:	WHEAT.		BARLEY.		RYE.		OATS.	
	Imported.	Exported.	Imported.	Exported.	Imported.	Exported	Imported.	Exported.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Hanover . .	913½	157½	2,982	493½	2.929½	2,509½	5,901	693
Einbeck . .	819	214½	1,428	336	5,796	472½	2,425½	336
Hildesheim .	1,827	73½	1,449	10½	577½	52½	1,669½	31½
Celle . .	10,006½	231	1,121½	84	3,507	84	5,638½	31½
Lüneburg .	3,213	4,452	1,711½	2,394	3.528	420	2,614½	9,450
Nienburg .	745½	4,305	1,701	4,357½	777	5,449½	5,533½	1,596
Osnabrück .	1,365	73½	472½	- -	693	31½	556½	63
Lingen . .	1,638	2,814	1,018½	11,455½	1,470	105	955½	59,493
	20,527½	12,348	16,884	19,131	19,278	9,124½	25,294½	71.694
More Imp. Qrs	8,179½	- -	- -	- -	10,153½	- -	- -	- -
More Exported	- -	- -	- -	2,247	- -	- -	- -	46,399½

A similar Return for the period subsequent to the 1st of October 1826, may be furnished hereafter; but we leave it to the high consideration of your Royal Highness and your Excellencies, whether these Returns can

serve to elucidate the proposed question. They will not answer it sufficiently in any case, and would only assist in obtaining a result, should your Excellencies, &c. desire to ascertain the quantity of corn produced in the kingdom, and to compare with it its consumption.

Grote. *Meineke.*

No. XXXVIII.—An Account of the average Prices of Wheat, Rye, Barley, and Oats, in the Hanoverian Provinces of Calenberg, Göttingen, Grubenhagen, Lüneburg, Hoya, Hildersheim, Harz and Eichfeld, in the Months of April and October, from the Year 1817 to the Year 1827.

	APRIL.				OCTOBER.			
	Wheat.	Rye.	Barley.	Oats.	Wheat.	Rye.	Barley.	Oats.
1817	72/10	53/8	40/6	22/8	64/1	50/10	34/	19/11
1818	54/11	46/3	35/2	22/8	52/2	39/11	33/1	20/9
1819	42/5	35/1	29/3	19/11	35/1	28/1	19/10	12/3
1820	31/5	25/3	18/8	12/10	30/4	20/5	16/7	10/11
1821	27/2	19/	15/2	10/7	31/7	19/11	15/8	10/7
1822	28/9	17/7	13/11	9/1	29/	20/1	16/10	11/2
1823	31/2	25/3	20/6	15/1	26/11	16/5	12/3	7/8
1824	26/6	15/2	11/5	7/7	17/11	11/5	9/	5/10
1825	20/6	12/5	10/9	7/	19/5	13/2	10/11	7/5
1826	18	12/10	10/6	7/2	23/8	20/1	16/6	11/8
Average Price .	35/4 ½	26/3	20/7	13/5 ½	33/	24/- ½	18/5 ½	11/10
Market Price in 1827.	29/6	26/11	21/	14/9	26/	24/1	16/2	10/4

No. XXXIX.—Prices of WHEAT and RYE in the several Ports of Europe, from which the Consuls have made Returns, in the Months of September and December 1826 and 1827.

		SEPTEMBER.		DECEMBER.	
		Wheat.	Rye.	Wheat.	Rye.
Odessa	1826	15/7—14/5	4/5	15/8—11/3	5/5
	1827	—	—	—	—
Petersburg	1826	25/4	17/3	23/	17/3
	1827	24/6	14/8	31/10	14/1
Dantzic	1826	21/7	11/2	27/9	19/10
	1827	20/9	13/3	24/	18/3
Königsburg	1826	19/9	12/4	28/1	18/10
	1827	22/3	13/10	23/5	14/7
Memel	1826	17/6	13/	20/7	18/
	1827	20/9	15/9	21/1	15/10
Gottenburg	1826	32/9	28/1	64/4	41/6
	1827	28/9	21/3	30/10	23/2
Christiana	1826	32/5	25/11	37/9	36/6
	1827	23/9	19/9	32/5	25/11
Copenhagen	1826	23/5	19/5	—	—
	1827	—	—	—	—
Hambro'	1826	20/1	18/	35/5	30/
	1827	21/10	19/8	27/	24/3
Amsterdam	1826	30/4	22/4	—	—
	1827	. . . . .	26/10	36/8	—
Rotterdam	1826	33/2	28/5	42/3	32/
	1827	37/5	29/9	42/11	32/9
Antwerp	1826	30/10—33/1	21/1—22/1	39/6	28/4
	1827	36/7	26/4	40/11	29/9
Havre	1826	41/6	19/6	40/6	21/3
	1827	42/6	19/6	46/	27/9
Charente	1826	. . . . .	. . . .	33/4	—
	1827	35/2	. . . .	44/3	—
Bordeaux	1826	34/4	21/2	39/8	23/6
	1827	44/6	27/	51/6	33/8
Marseilles	1826	49/2	. . . .	54/8	—
	1827	59/10	. . . .	72/2	—
Corunna	1826	39/	20/2	41/2	21/8
	1827	39/	20/2	41/2	22/4
Valentia	1826	67/7	. . . .	68/3	—
	1827	53/10	. . . .	54/7	—
Lisbon	1826	58/9	35/5	66/8	44/7
	1827	57/2	40/10	54/7	—
Leghorn	1826	26/9	. . . .	39/10	—
	1827	41/5	. . . .	45/6	—
Naples	1826	24/1	—	—	—
	1827	26/5	. . . .	36/5	—
Civita Vecchia	1826	26/3	. . . .	34/7	—
	1827	35/7	. . . .	43/4	—
Ancona	1826	25/10	. . . .	31/8	—
	1827	31/4	. . . .	31/2	—
Venice	1826	24/9	. . . .	40/10	23/3
	1827	36/7	18/3	43/	28/8
Trieste	1826	23/7	18/6	34/	22/2
	1827	34/7	29/6	34/10	21/

No. XL.

Communication in reply to the Queries on the Report respecting the Trade in Corn in various Parts of *Great Britain* and *Ireland*.

IRELAND.

1st.—Was there a large stock of corn in the hands of the cultivators, at the commencement of the harvest of 1827?

At the harvest of 1827, scarcely a barrel was left, even with the millers, who usually retain old corn to mix with the new. The stocks, except in three or four instances, were inconsiderable. Potatoes, owing to the short supply at market, supported a high price till the middle of August, and from those causes, but more especially the latter, much of the crop of 1827 went very early into consumption.

2d.—Have the cultivators of late years kept so large a quantity of corn as they were accustomed to do in former periods?

They have not. During the war, the landlords easily raised money at the banks on discount, and consequently were not under the necessity of opposing the speculations of the farmers; since, however, the failure of so many banks in the south of Ireland, the landlords, *generally*, have been unable to continue this indulgence. We find, accordingly, by the notes of the different markets, that the delivery of the crops is every where, not only quite unreserved, but much earlier than during the war Indeed, since 1816, very little corn appears at market after March.

3d.—Has the trade of buying corn in cheap seasons, to sell it at an increased price in dear seasons, been carried on so extensively of late years, as it was formerly?

No. The uncertain state of the corn trade, with relation to the continent, together with the loss of capital, described in Answer to Query 4, have effectually checked that speculation, so general during the war, both in this country and in England, where, for years past, no stocks, save of foreign corn, have been kept.

4th.—Has the capital heretofore employed in such trade in corn, been of late applied to other branches of industry, or, has it been dissipated by losses arising from the low prices of corn?

It was almost totally destroyed by the circumstance of the entrance of the British army into the south of France. At that period, several cargoes of corn were thrown overboard at Passages, St. Sebastian, &c. &c. for the freight of which actions were afterwards successfully instituted. Two-thirds of the Irish houses then in the trade became bankrupt, and none escaped without the severest loss. Several, whose credit and connexions enabled them to withstand the first burst of the torrent, went ultimately one by one. An idea may be formed of the extent of the ruin,

by the fact, that at the time of its occurrence, one single house in Dublin had more capital than could, by the whole of the trade together, be now applied, under the present narrowed circulation of paper currency.

5th.—Have the mealmen, who buy corn and sell the flour, lately kept so large a proportion beforehand, as they were formerly accustomed to do?

The millers, having all held stocks, participated to a certain degree in the losses of the merchants, but they do not, nor can they hold any thing like the stocks they retained formerly—the numerous banking establishments being destroyed, which offered such facilities when it was the object of the banker to circulate his paper through such natural channels. The intermediate mealmen, between the manufacturer and the public, seldom holds more than a month's consumption, except in years when a scarcity in the spring may be apprehended; but his means are at all times limited, and the miller, equally aware of his wants, deals with him accordingly.

6th.—Has the stock of flour in the hands of the bakers been as great of late years, as it used to be formerly?

Since the peace, the bakers have not been accustomed to hold more than a fortnight's stock, except during the interval between the old and the new flour, when such as can get credit are generally inclined to lay in a month or a five weeks' stock. In this instance of the city of Cork, the fact is fully proved by the almost unvarying equality of the weekly sales, and the quantity requisite for the public weekly consumption. These observations do not of course apply to seasons when well-grounded fears are entertained of a deficiency in the coming crop.

The observations which shall now be offered, though unconnected with the proposed queries, are not uninteresting to the trade. In all the great shipping ports, no stocks remain in the hands of the merchants, ship and draw having become the maxim. Neither do the millers at this moment hold one-half of the average of their last four or five years' stock, though perhaps one-fourth of the year's crop remains undelivered. There will be a decrease of nearly one-third in the produce of the Wheat of 1827, compared with that of the preceding year. The quantity of ground under Wheat for 1828 will be found to be far short of the breadth sown in 1827, and the present heavy rains must render the growth of the low grounds very unproductive.

From the county of Cork, 10th January 1828.

Answer to Query No. 1.—The stock was very small.

To No. 2.—I think not.

To No. 3.—I understand not.

To No. 4.—The capital is not diminished by its application to other branches of industry generally speaking, nor dissipated by losses arising from the low prices of Corn.

To No. 5.—The millers, who I believe are in some manner similar to the mealmen in England, have not kept so large supplies beforehand, as formerly.

To No. 6 —Not so great of late years as formerly, making due allowance for the increase of population.

From the county of Waterford, 11th January, 1828.

Answer to Query No. 1:—Very little Corn in the hands of the cultivators at the harvest of 1827.

To No. 2.—The cultivators have not of late years kept Corn, even from one year to another, as at former periods.

To No. 3.—The trade in general, of late years, have not speculated so much in holding over Corn, on account of the uncertain state of the Corn Laws, respecting foreign imports.

To No. 4.—Capital has not been so much employed in the Corn trade of late, on account of the uncertain state of the law regarding the import of foreign Corn.

To No. 5.—The mealmen have invariably kept, and do keep large stocks on hand.

To No. 6.—Bakers do not hold such large stocks as in former years.

County of Waterford, 10th January 1828.

Answer to Query No. 1.—At the commencement of the harvest 1827, there was scarcely a bushel of Corn in the possession of the farmers in this country; and, on inquiry, I do not find that twenty bushels were delivered at the mills or stores of Clonmell after the 1st of August, the produce of the year 1826.

To No. 2.—From my knowledge of the Corn trade for the last forty years, I can state, that the cultivators are not in the habit of keeping a quantity of Corn on hand after Spring, say March or April, and I do not know of any variation within the last few years.

To No. 3.—There is scarcely an instance of Corn being purchased in this part of the Country in cheap seasons, in order to sell the same at increased prices in dear seasons. The dealers in a very general way, send to the British markets as fast as they receive it, and the millers, who are by far the greatest purchasers and holders, having only in view a supply for their manufacture until another harvest brings them into stock.

To No. 4.—Notwithstanding the great losses occasioned by Parliament's unexpected agitation and changes in the Corn Laws, but little

alteration appears in the capital of the millers and dealers in Grain, who either have funds, or procure accommodation at banks or otherwise adequate to their business.

To No. 5.—We have not any persons in this country answering the description of mealmen. The millers purchase the Corn from the farmers, and supply the bakers and retailers with flour, meal, and bran, direct from the mills.

To No. 6.—The bakers very seldom have any stock of Flour on hand. They generally purchase from the millers their weekly supply, unless when they expect an advance in price; they, at times, engage a further supply than they immediately want. The farmers of Ireland, particularly in the South, being, in a general way, without capital, are obliged to send their corn to the mills and the stores in the six months next after harvest, and the millers in that time must secure a year's supply for their mills, as in the Summer months a supply is not to be procured.

From the County of Tipperary, 2d January, 1828.

Answer to Query No. 1.—Never less, I believe; none.

To No. 2.—No period is mentioned; but at this time, for this part of the country, I think the farmers hold more Corn than I ever remember in the month of January to be in their hands. I attribute their holding so much Grain now to the mildness of the last three months, not having had occasion to thresh out, to give the straw to their cattle; and the landlords have not been so pressing, looking to higher prices.

To No. 3.—Certainly not; the failures of the banks caused merchants not to hold so much.

To No. 4.—The capital has been lessened by losses and failures of houses in the trade with England, but not otherwise applied.

To No. 5.—The millers have not much more than their usual stock at this season of the year.

To No. 6.—The bakers in Ireland are so very poor, compared with those in England, that they hold no stocks in general.

County of Waterford, 9th January, 1828.

Answer to Query No. 1.—Very little, and this in the hands of a few farmers. They cannot afford to hold stock from one harvest to the other.

To No. 2.—They have not. Almost the entire of their Corn has been annually delivered, previously to the month of May.

To No. 3.—When Corn is cheap, millers buy with great eagerness, but the buying is the same each year, no matter what may be the

price. Millers lay in stock in the months of November, December, and to February; and, unless they can buy their whole year's stock in those months, their mills will be idle in the latter end of the season, the farmers having sold their Corn; with a few exceptions, it is true, Millers may buy from merchants who buy for exportation, but as the Corn bought for this purpose is of a mixed kind, and consequently bad in quality, the millers have a professional objection to purchase it.

To No. 4.—The capital varies according to the price of Corn. Many millers have laid out a part of their capital in the funds; others have dissipated a portion of their capital by the fall in prices, the consequence of releasing bonded Corn.

To No. 5.—The government having violated the Corn Laws, mealmen have ceased to speculate. They grind or dispose of stock in quick succession, and in many instances force sales at an under value, in preference to holding Corn at the approach of the new harvest.

To No. 6.—It has not. The want of confidence in the Corn Laws, and the versatility of the markets, have caused it.

Remarks.—In England, the mealmen are weekly or monthly supplied by the farmers, or from stores or vessels; but in Ireland the millers must lay in their year's stock in a few months. This difference in the nature of the trade obliges the Irish miller to expend considerable sums in building stores and kilns, for which the English mealmen have no use. In England, the process of cleaning Wheat is not known. The millers only grind the Wheat and dress the meal. In Ireland, the process of cleaning Wheat embraces many ingenious machines, various in their construction and expensive in their erection.

From the County of Waterford, 18th January, 1828.

Answer to Query No. 1.—I should be disposed to say, there never was less Corn in the hands of the Irish cultivators than at the commencement of the harvest 1827.

To No. 2.—I cannot speak from my own observation if the comparison is to be made with a period previous to 1815. There never was a large capital embarked in agriculture in Ireland, consequently the farmers could seldom keep back a large quantity.

To No. 3.—There is much less Grain held by Irish merchants in cheap periods now than there formerly was.

To No. 4.—There has not been much capital withdrawn from the Corn trade for the purpose of employing it in other branches of trade, though a large amount was doubtless dissipated by losses for a few years after the termination of the war; but a far greater alteration has been wrought by the change from a period of almost unlimited credit and boundless speculation, to one in which both have been checked by the improvement in our banking system. The consequence is, that

speculations being confined to real capitalists, our surplus produce is held now by the importers into the English markets.

To No. 5.—I should think the millers keep as large stocks now as they were ever accustomed to.

To No. 6.—The bakers in Ireland are not generally wealthy; the principal holders of Flour are factors and millers, to whom bakers generally look for their weekly supplies. They seldom keep much Flour on hand.

City of Waterford, 9th January, 1828.

Answer to No. 1.—Just previous to the harvest of 1827, there were not, in all probability, 100 quarters of wheat in the hands of farmers in the county of Waterford; and I find, that at Clonmell, which is one of the greatest corn markets in the south of Ireland, there were not 20 barrels of Wheat sold by the growers after the 1st May, 1827.

To No. 2.—At this moment the farmers have large stocks, especially of Oats, of the growth of 1827.

To No. 3.—There is very little Corn held over in Ireland from one season to another. The merchants' stores are almost all cleared out before the new harvest, and the Corn shipped for England.

To No. 4.—The capital employed in the Corn trade in the South of Ireland is very much supplied from England, the Corn being bought on commission. The failures of the banks have certainly lessened the capital in the Corn Trade in Ireland, by lessening the accommodation afforded to persons who have no capital of their own.

To No. 5 and 6.—These Queries may be correctly answered in the negative from the information which I can collect.

County of Waterford, 10th January, 1828.

SCOTLAND.

To Query No. 1.—Very little Corn remained at the period in question. The stock of Barley, Oats, Beans, and Pease, was completely exhausted, and there had not been less Wheat on hand for a number of years.

To No. 2.—I am decidedly of opinion, that they have not; and it may be remarked, that they have had no inducement to do so, owing to an unsettled Corn law.

To No. 3.—The state of the law has certainly prevented extensive speculations in free Grain, and next to no business of this kind has been entered into for several seasons.

To No. 4.—I do not think much of the capital generally employed in the corn trade has been applied to other purposes, but I presume it has been lessened, in consequence of losses, and the change in prices of grain.

To No. 5.—The mealmen have hardly been keeping stocks quite so large as formerly, yet the alteration, in my opinion, is by no means material.

To No. 6.—The average stock of wheat (in a manner, no flour is held) kept by bakers, is not less than the average quantity in their hands during the six years previous to 1823.

Glasgow, 11th January, 1828.

To Query No. 1.—There was an unusually small stock of all kinds of grain on hand at that period.

To No. 2.—The stocks of corn kept on hand by our farmers, have of late years been very small.

To No. 3.—During the last two or three years, speculation in corn has been carried on to some extent, but not nearly to the extent done in former periods.

To No. 4.—I do not think that there is much less capital employed in the corn trade than was formerly, or that it has been applied to other business.

To No. 5.—The mealmen have not kept so large a provision as they used to do, probably not above one-half or one-third.

To No. 6.—Our bakers have in general, of late years, held small stocks of flour and wheat, certainly much less than they were accustomed to have.

Leith, 10th January, 1828.

To Query No. 1.—For many years, there has not been so little grain in the hands of the cultivators, as was at the harvest of 1827.

To No. 2.—Excepting last year, and the year before, the cultivators have kept about the same stock as formerly.

To No. 3.—In this market, the trade of buying corn when cheap, and keeping it till dear, is but little resorted to. The chief part of the grain held here in ordinary times, is consigned.

To No. 4.—The capital formerly employed in the trade of corn, has been diminished more by losses, than by applying it to other branches of industry.

To No. 5.—The bakers and dealers in corn have generally this year smaller stocks than usual.

To No. 6.—The stock of flour in the hands of the bakers here, is never great, because they grind wheat as the flour is wanted, and keep their chief stocks in wheat.

West of Scotland, 11th January, 1828.

To Query No. 1.—Barley, oats, beans, and pease were exhausted, but some wheat left on hand.

To No. 2.—No. They have sold, and at low prices, to meet high rents, or with small crops, at prices reduced by foreign grain.

To No. 3.—By no means. Much money has been lost by following this plan.

To No. 4.—We think as much capital is now employed in corn as formerly by merchants, but with second and third rate dealers, is much dissipated by losses.

To No. 5.—They do not keep, nor are they able to keep, such stocks as formerly.

To. No. 6.—Bakers here keep no stocks of flour, but generally wheat; and we do not think they have kept such large stocks of this for some years, as they did formerly.

West of Scotland, 11th January, 1828.

To Query No. 1.—Very little corn in the hands of the cultivators at the approach of the harvest of 1817, but the merchants held some by them.

To No. 2.—The cultivators have not of late years held over their crops so long as formerly. Their greater poverty has been one cause of acting so, and another, the constant dread of a change in the laws, when the protection may be less favourable to the home growers.

To No. 3.—The speculative trade of buying corn in cheap seasons, to hold over for an advance, or the chance of a cheap season being succeeded by a dear one, is still pursued, but to an extent not by any means on the scale of former years.

To No. 4.—The actual capital possessed by the corn dealers of this district was never very large, and the greater part of the purchases and sales bear a credit of three to four months. The aggregate capital remaining may probably be as much still as at any former period; but many capitalists and merchants, unconnected with the trade, were wont to speculate in grain, through the factors, who now, from its greater uncertainty, have discontinued their operations, or turned their attention more to foreign than to British corn.

To No. 5.—The dealers, millers, and bakers, who purchase wheat and oats for the general purposes of their trade, have not latterly been holding so much as in former periods. Still the difference between their late and previous holdings is not upon a scale of material magnitude.

To No. 6.—The stock of flour in the hands of bakers, or of oatmeal in the hands of retailers, rarely varies much in one year as compared with another. The reasons are, that the baker buys wheat, and has it ground into flour just as he requires it, and the retailer of oatmeal requires it fresh from the mill; of course the miller only grinding according to the demand. The corn merchants deal very little in flour or oatmeal, leaving these to the baker and the miller, who buy from them the wheat and the oats.

Glasgow, 14th January, 1828.

To Query No. 1.—No, never less.

To No. 2.—No; their pecuniary circumstances would not admit of it.

To No. 3.—No. The capital of most dealers in corn has been locked up in adventures in foreign corn, which many have held on in expectation of higher prices.

To No. 4.—The answer to this question is given in the preceding. Many who have sold, have done it at a loss, diminishing their capital seriously; and from the vacillating conduct of government in suspending the law by acts of council, and holding out principles of change, the effects of which cannot be foreseen, no man of prudence would adventure in speculations in home corn.

To No. 5.—The mealmen, and those who buy and sell the flour, act upon the same principle as the merchant, and now make no longer provision in stock than their immediate demand.

To No. 6.—The stock of flour was never more limited in the hands of the bakers than at present.

Remarks in addition to the Answers.

The quantity of foreign grain on hand is considerable, and a good deal in bond liable to a heavy duty. The supplies by the farmer are large, occasioned principally by inferior quality, which precludes its keeping, and the chief sales at present are between the grower and the manufacturer. The merchant and middle dealer, for the reasons above mentioned, have been in a great measure thrown aside. The consumption is not so great as formerly, in consequence of the consumer's want of means.

Note.—The gentleman who has furnished these last answers, is represented by my correspondent as an individual of peculiar information and accuracy.

Leith, 14th January, 1828.

To Query No. 1.—In Scotland, at the commencement of the harvest, 1827, there was a large stock of wheat on hand. This was not, however, all in the hands of cultivators, but partly in the granaries of the bakers and merchants. Of barley, oats, and beans, the quantity was very trifling, and even that was chiefly of foreign growth.

No. 2.—The wheat kept over year might be nearly the same as on an average of seasons; but, with regard to other grains, a far greater quantity used to be retained from one year to another. This was owing to the deficiency in all the spring-sown crops in 1826, few of them exceeding one third of a crop.

No. 3.—The trade of buying and storing corn for adverse years never prevailed to any extent in Scotland. There is a want of capital for carrying it on.

No. 4.—Whether capital originally in the corn trade had been shifted to other trades, is not easily answered; but I am inclined to think the change has rarely occurred.

No. 5.—There are few mealmen in Scotland, except in Edinburgh and Glasgow; and even in those populous places the number is not great. The general practice is, for bakers to purchase wheat and manufacture it into flour at the adjoining mills.

No. 6.—The stock of wheat with the bakers depends on the extent of their capital. Those who have a command of money are always well provided with wheat; whereas those in a different state are generally from hand to mouth, even in the most plentiful years.

This last series of answers was received through the hands of the Right Honourable Sir John Sinclair, Bart.

From East Lothian, January 3, 1828.

The same alteration in the state of the corn trade in England was verified by numerous inquiries among the most intelligent mealmen, corn-factors and flour-factors, in and about London. The communications being verbal were not committed to writing, but they all agreed, without contradiction, though with some variation of opinion as to the extent, that the quantity of corn held by the different parties, from the farmer to the consumer, was much less within the last few years than at former periods. The views of experienced persons in the eastern and western counties of England are as follow:

Answer to Query No. 1.—No,

To No. 2.—The poverty of the greater part of the cultivators has prevented their holding back their corn to the extent they were formerly accustomed to do; and for the last three or four years there has been little or no inducement for those who could hold to do so. Thus, of late there has not been so large a stock of grain kept by the growers as formerly.

To No. 3.—Certainly not.

To No. 4.—Very much dissipated by losses in the corn trade, and to some extent diverted to other kinds of business.

To No. 5.—No; since there has not been the same inducement to speculate as formerly.

To No. 6.—Upon an average perhaps much the same; with the smaller bakers the low prices have enabled them to keep a larger stock, whereas there has been less inducement than formerly to the monied bakers to speculate.

From an Eastern County, January 20, 1828.

Answer to Query No. 1.—The stock of all grain was unusually small at the time of the harvest of 1827, and more particularly in barley. This

arose from the extreme drought in the summer of 1826, when in many of the western and midland counties very little corn or hay was produced, and they were consequently supplied from other counties.

To No. 2.—The cultivators of late years have generally kept less stock of grain; for although a *few* capitalists have kept more because of low prices, yet the *many* did not, and many could not for want of money.

To No. 3.—There were not so many speculators in corn when it became cheap as before, because of failures and losses, and less means of accommodation in capital and credit. Hence, less was stored with a view to higher prices in future seasons.

To No. 4.—The capital employed in the corn trade has been less of late years from less accommodation by country bankers and others, besides, in some degree, by losses; but to a small amount, by application to other branches of industry.

To No. 5.—When prices are low, and *then* little fluctuation passing, there is less desire to keep large stocks, and, therefore, less were kept by the mealmen.

To No. 6.—The same observations will apply to this as to the 5th Query. The stocks of the bakers have, therefore, been generally less than formerly.

From an Eastern County, January 18, 1828.

Answer to Query No. 1.—The quantity of wheat left at the harvest of 1827 was not large, of other corn very small. The wheat was confined within a few hands, and may have been nearly equal to the usual quantity.

To No. 2.—The want of money has obliged them generally to bring their corn to market as early as possible of late years, and but few o the more wealthy have seen sufficient prospect of advance to induce them to hold.

To No. 3.—In this county but little was done in this way, and of late years nothing has been undertaken, the whole of the trade in corn being confined to millers, maltsters, and consumers of home corn, who purchase from the farmers.

To No. 4.—Most of the capital employed by merchants or middle men in former years has been lost, and the remainder withdrawn from the trade, there being now no capital employed in the trade in corn.

To No 5.—Their stocks have been seldom more than the probable consumption of a month or two, and of late they have been still smaller.

To No. 6.—The stocks of the bakers are never extended beyond their probable demand for a few weeks, and of late years they have kept them as light as possible.

From a Western County, January 18, 1828.

No. XLI.—An Account, showing the No. of Inhabitants in each of the Provincial Governments of *Prussia*, for the several Years from 1817 to 1826 inclu.

Observation:—The data for the Years from 1817 to 1822, and for 1825, are taken from the Census of the Police; those for 1823, 1824 and 1826, are formed by adding the Births and subtracting the Deaths of each Year, because since the Year 1822, the Police Census is only taken Triennially.

Provincial Governments.	Enumeration of the Civil Inhabitants at the end of the Year.									
	1817.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.
Königsberg	541,836	565,324	580,395	608,954	724,163	634,815	646,308	657,827	673,268	683,925
Gumbingen	364,916	397,180	411,673	431,377	445,290	451,788	460,429	469,035	478,640	488,380
Danzig	237,323	247,956	259,915	273,183	283,002	288,584	295,044	301,138	310,244	316,340
Marienwerder	333,476	350,235	360,857	384,905	392,255	397,395	407,740	416,640	427,117	436,071
Posen	579,753	587,080	599,173	618,249	635,188	649,947	660,613	671,654	706,396	715,712
Bromberg	261,368	272,248	277,405	290,609	297.399	308,346	309,319	316,625	325,529	330,235
Potsdam	696,878	706,530	711,677	734,779.	748,027	762,882	773,354	784,000	802,038	812,138
Frankfurt	569,887	579,171	588,491	603,428	615,831	627,197	638,383	648,599	657,218	667,344
Stettin	321,379	329,108	335,142	350,371	358,974	367,465	374,677	381,518	389,412	394,875
Cöeslin..	241,036	247,469	250,971	263,846	273,804	280.542	286,857	292,384	298,218	303,836
Stralsund	127,266	130,440	131.276	132,873	135,425	137,353	139,604	141,754	142,312	143,595
Breslau.....	792,071	805,298	816,199	836,183	851,423	862,698	873,502	885,567	903,404	914,607
Oppeln.....	529,964	543,741	551,071	588,557	601,562	608,097	615,546	628,866	647,399	660,756
Liegnitz	644,025	651,453	659,727	677,012	685,049	692,271	700,057	706,806	707,482	713,936
Madgeburg	466,180	473,396	478,465	485,722	493,560	500,866	506,984	514,103	520,172	526,197
Merseburg	495,985	499,042	516,164	525,366	532,939	541,034	548,914	557,280	558,584	565,632
Erfurt	235,198	239,194	242.182	246,478	248,843	252,771	256,723	260,007	263,231	267,059
Munster	350,274	353,284	357,539	360,104	364,464	368,872	371,380	375,380	380,054	383,269
Minden.....	337,640	340,167	341,397	348,138	354,163	356,861	363,036	369,317	369,204	374,183
Arensburg	378,227	381,400	386,233	396,443	400,362	406,527	412,968	418,831	427,652	432,897
Cologne	333,795	338,755	344,042	345,681	348,918	351,531	355,450	360,190	363,826	367,580
Düsseldorf	592,928	600,979	607,434	611,311	613,811	623,062	630,697	639,591	652,875	660,224
Coblentz	355,198	361,686	367,694	367,306	372,599	379,745	384,671	389,470	392,573	397,485
Treves	297,537	301,404	308,170	314,653	319,830	325,464	332,175	437,774	342,684	348,208
Aix-la-Chapelle . .	309,902	314,359	316,662	317.361	321,299	324,060	327,609	331,960	336,025	339,119
	10.394,042	10,616.899	10,799,954	11,112,889	11,318,120	11,494,173	11,672.040	11,856,316	12,075,657	12,243,603

No. XLII.

REMARKS.

In obedience to the requisition of his Excellency the Minister for Foreign Affairs, on the 28th of last month, I have hastened to prepare an account, showing the number of inhabitants at the end of each year, in each of the governments of the Prussian kingdom, for the several years from 1817 to 1826, both inclusive; that it may be communicated to Mr. William Jacob, to whose beneficial labours I shall also be most happy personally to afford assistance in any way that is in my power. I beg to be allowed to preface the account with the few following remarks, which may, I think, be of some further service to Mr. Jacob:—

1st.—The number of inhabitants in the Prussian States, at the end of the year 1827, can hardly be given distinct from that of July 1828, because, in compliance with the former practice, a period of nearly six months is requisite before the accounts from all the different states could be so fully prepared and completed, as that a general view of the whole collectively could be taken.

2d.—In the course of the ten years here named, various changes have taken place in the internal divisions of the different states; namely, [a] The union of the former province of Berlin with that of Potsdam; [b] That of Cleves with Dusseldorf; [c] Also the extinction of the former province of Reichenbach, and its partition between those of Breslau and Leignitz; [d] The separation of the district of Kreuzberg (possessing a provincial council) from the state of Breslau, and its union with that of Oppeln. These changes, however, do not affect the account of the increase of population, because the computations in the states of Potsdam, Dusseldorf, Breslau, and Leignitz, are made according to the divisions of those several provinces, in the condition to which they have been brought by the alterations which have taken place in them.

3d.—Another change also took place in the year 1825, in the boundaries of the states, when the circle of Spremberg, which formerly belonged to the province of Frankfort, was divided into two parts; the largest, under the name of the circle of Hoyens, was attached to Leignitz, while the smaller continued to belong to Frankfort, though still under the name of the province of Spremberg. But neither had this change any influence on the deductions to be drawn from the following statements, as those of the inhabitants of Frankfort and Leignitz, in the years 1825 and 1826, are given as the divisions actually existing at the time, and before the intended alterations were completed.

4th.—In the annexed account, those soldiers are not included who were on actual duty at the time of the computation, nor their families, who being with them in garrison were under military jurisdiction; nor

could they on this account be included in the computation of any particular province, as, from the changes which take place from time to time in their quarters, it would have led to false conclusions as to the increase or diminution of the population. In the facts relating to all the provinces which have so unfrequently been made public, the military are all included in the computation, which consequently differs from that of the following account; for example, in the last police computation, taken at the end of the year 1825, which was made public in various ways, the aggregate amount of the population in the Prussian states was 12,256,725
Of whom 181,068

Of the military (taking the term in the extent before specified) being deducted, leaves 12,075,657

as the remainder, which the annexed account presents, as the result of the account of the civil inhabitants drawn from the separate states. The result given of 181,068 persons, as the existing force, is no guide to show the real strength of the army, as it includes all those found in garrison, women, children, and servants,—a very numerous class, particularly in the garrison belonging to the invalid companies; and on the other side, those in the kasernes of the standing army and the militia, which are always ready to be drawn together, are not included, but are numbered among the civil inhabitants in the places where they may be quartered.

5th.—The number of families who are moving about, either in or from their country, is very inconsiderable compared with the whole number of residents in the state; but, on the other hand, it is not wholly unimportant to notice the number of young people who find occasion to leave their homes, some entering the country, while others are leaving it for foreign lands. On the whole, we shall find those changes to favour the population of the Prussian country, because its large cities afford many more means of gaining a livelihood than do the smaller states in its neighbourhood, which from their more confined extent contain fewer large cities. At the same time, the principal source of increased population arises from the births exceeding the deaths. Thus, for example, taking the number of inhabitants, civil and military, together, according to the enumeration of 1825, at 12,256,725
And that at the end of 1822, at 11,664,133

The increase during this period of three years, at . 592,592
The excess of the births over the deaths in the same period, according to the list of births and deaths, is only . 562,836

Consequently, the excess of those who have entered, over those who have left the country during this period of three years, according to both computations, is . 29,756

or only $\frac{5}{1\,9\,9\,8}$ parts of the whole increase of population.

6th.—The changes in the population from the removal of people from one province to another is of more consequence, and it has particularly increased those of Potsdam and Posen, at the expense of the circles of Leignitz, Frankfort and Merseburg.

7th.—The care in the enumeration has been very much increased by the new government arrangements of 1816; and the different computations have been brought so near to perfection since 1820, that the finance authorities have received an increased interest since the introduction of a poll-tax by classes of the 30th May in that year. In the old enumerations a few people were evidently here and there omitted, who were included in the later accounts. When, therefore, the inhabitants, both civil and military, of the year 1820, are computed at . . 11,272,482
Taking those of 1817 at only 10,572,843

We must not regard the excess 699,639
as the actual increase of people in the years 1818, 1819, 1820, as it also includes the increase arising from those who had been omitted in the first enumeration. How much the inacouracies of the first year may have erred cannot now be ascertained; but I can only imagine, from observing the accounts of the different years separately, that we shall not greatly miscalculate, if we assume about 1 in the hundred as the medium of the missions in the computations of 1817. These inaccuracies diminished by degrees in the following years, and no remarks require to be made as to the correctness of the account of 1820.

8th.—The use of grain has not only increased with that of the population, but also with their increased comforts, as more beer and brandy are consumed, the flour for meal and puddings is more carefully separated from the bran, and more cattle for food have been fatted with grain. Notwithstanding the increased consumption of potatoes, particularly for brandy, the increased consumption of grain at present appears to be very striking, and I believe that its operation by much exceeds the effect of the increase of population; it undoubtedly appears, that the means of subsistence among the lower classes of the people have strikingly improved from year to year, and is the most probable cause of the very rapid increase of population in the Prussian states.

I beg the royal minister condescendingly to accept these introductory remarks, as a renewed expression of my marked respect,

Hoffman.

Berlin, 2d January, 1828.

To the Royal Minister of Foreign Affairs.

No. XLIII.—An Account, showing the Number of NEAT CATTLE, and of HORSES, in the Year 1816 and 1825, in the several Departments of the Kingdom of PRUSSIA.

	1816.				1825.				1816.		1825.	
	Bulls.	Oxen.	Cows.	Young Cattle.	Bulls.	Oxen.	Cows.	Young Cattle.	Horses.	Colts.	Horses.	Colts.
East Prussia	7,932	124,857	208,580	129,918	9,038	141,107	245,844	127,369	226,239	48,372	275,047	55,082
West Prussia	4,462	57,393	102,660	51,294	4,484	62,099	123,090	52,152	83,630	18,386	100,199	16,359
Posen . . .	3,276	84,710	119,621	65,122	4,526	95,478	158,193	85,770	66,082	8,657	88,814	15,160
Brandenburg	5,822	128,276	153,951	142,310	7,627	106,020	277,706	125,849	139,039	23,420	152,207	21,007
Pomerania .	5,262	69,795	195,371	100,202	6,652	55,168	225,272	93,889	96,627	23,171	105,423	24,737
Silesia . .	8,695	107,200	399,531	168,113	10,308	110,877	445,991	177,888	139,323	20,979	148,534	21,980
Saxony . .	5,093	46,150	239,091	131,793	8,896	40,292	263,572	110,997	107,499	22,825	123,972	19,905
Westphalia .	4,924	13,333	275,790	142,733	5,633	13,058	300,845	161,955	102,198	23,550	112,345	16,930
Rhinelands .	6,205	69,099	388,271	146,385	5,051	80,567	413,314	192,554	82,013	12,651	96,101	12,146
	51,661	700,813	2,182,866	1,077,870	62,265	704,666	2,464,283	1,124,373	1,042,650	202,001	1,202,642	199,706
				2,182.866				2.464,283		1,042,650		1,202,642
				700,813				704,666	Total..	1,244,651	Total..	1,402,348
				51,661				62,265				
			Total....	4,013.210			Total.....	4,355,587				

No. XLIV.

Account of SALE and NET PROCEEDS of 410 Quarters of OATS, by the Anthonius and Cornelia, Captain Blom, sold for Account of A. B. of Amsterdam.

	£.	s.	d.	£.	s.	d.
399 quarters sold at 19/ per quarter . .	.	.	.	379	1	0
11 loss in measure.						
To deduct:						
Freight from Amsterdam, at 27/ per last, primage 10 per cent. hat money and trimming	87	19	11			
Entry, scavage and fees	1	8	0			
Duty on 410 quarters, at 2*s*.	41	0	0			
Metage on ship	11	12	3			
Interest on 142*l*. 2*s*., 1 year and 47 days, at five per cent per annum	8	0	3			
Lighterage and Landing	13	13	3			
Turning in granary, 14*l*. 17*s*.; metage and porterage, 9*l*. 19*s*. 6*d*.	24	16	6			
Granary rent and fire insurance for 50 weeks, at 4/6 per 100 quarters per week, petty expenses and stamps	48	13	6			
Brokerage of sale, at 6*d*. per quarter . . .	9	19	6			
Commission of ditto, and delcredere of the buyers, on 379*l*. 1*s*. at three per cent. . .	11	7	5			
				258	10	7
Net proceeds value, 11th February, 1828 . .			£	120	10	

(Errors excepted.) *C. D.*

No. XLV.

An Account, showing the quantity of WHEAT Exported from all the Baltic Ports of the Kingdom of *Prussia*, in the Years from 1819 to 1827, both inclusive.

1819 . .	155,055	Taken from the Appendix to the Report on Foreign Corn, ordered to be printed by the House of Commons, 14th March 1826.
1820 . .	464,744	
1821 . .	194,840	
1822 . .	78,316	
1823 . .	121,692	
1824 . .	93,630	Taken from an official Account procured from Berlin, by his Excellency Baron Bulow.
1825 . .	219,290	
1826 . .	373,444	
1827 . .	270,576	
	9)1,971,577	
	219,064	

An Account of the Import and Export of the several kinds of Grain, in the Kingdom of the Netherlands, from 1st January, 1814, to the 31st December 1822, with the Last reduced into Quarters, in the proportion of One Holland's Last to Ten Quarters and a Half.

YEARS.	Buck Wheat.		Barley.		Oats.		Rye.		Winter Barley.		Wheat.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	Qrs.	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*
1 Jan. to 31 Dec. 1815	7,413	846	43,470	87,465	130,158	220,510	175,581	18,753	. .	. .	64,647	138,495
1 Year . . . 1816	4,483	945	103,015	74,650	5,785	179,499	326,781	151,494	. .	. .	157,951	310,527
— . . . 1817	21,388	. .	263,539	41,275	109,620	86,478	1,731,355	138,736	10	42	258,415	611,215
— . . . 1818	5,302	16,579	163,033	179,980	66,570	312,900	209,002	90,804	9,003	94	201,032	304,699
— . . . 1819	5,281	1,669	155,557	18,207	33,306	122,419	141,288	13,941	11,508	388	239,665	104,937
1 Jan. to 31 July 1820	5,880	189	151,641	735	37,978	8,221	87,591	829	483	273	194,691	46,420
1 Aug. to 31 Dec. 1820												
By land carriage .	94	105	1,543	2,992	2,656	703	3,213	630	199	231	9,093	5,029
By sea	976	1,491	23,877	535	2,667	75,568	93,187	262	. .	. .	117,316	37,180
By the rivers . . .	84	. .	651	16,382	3,675	3,402	746	21	. .	. .	4,189	7,087
1821												
By land carriage .	63	304	5,964	4,462	5,743	4,105	6,457	4,755	231	315	25,032	10,605
By sea	8,022	4,872	181,009	12,852	6,384	65 352	207,354	1,764	. .	157	181,461	29,127
By the rivers . .	294	31	4,998	15,613	357	2,583	882	73	. .	. .	15,235	3,181
1822												
By land carriage .	52	4,032	4,462	7,129	3,601	15,172	5,050	17,871	109	756	15,750	4,368
By sea	1,480	4,830	82,267	9,229	13,335	15,435	145,551	756	. .	. .	178,048	9,135
By the rivers . .	10	. .	2,625	13,902	1,302	19,194	829	4,305	. .	. .	4,546	231
	69,826	35,887	1,187,651	480,418	423,137	1,122,531	3,134,867	444,094	21,630	2,256	1,667,071	1,622,236

Until July, 1820, the distinction was not made between what was Imported or Exported by sea, and what by land, or by the different rivers.

No. XLVI.—Showing the Number of Inhabitants, and the Portion of Land cultivated with Corn and with Potatoes, in several of the Bailiwicks of the Kingdom of *Hanover*, in the Year 1817 and the Year 1826,

Bailiwicks.	1817.					1826.				
	Inhabitants.	Eng. Acres.	Pot. Morgs.	Corn, Acres.	Pot. Acres.	Inhabitants.	Eng. Acres.	Pot. Mors.	Corn, Acres.	Pot. Acrs.
Arlenburg	2,444	4,431	255	2,954	170	2,692	4,482	245	2,988	163
Isenhagen	3,741	13,786	389	9,190	259	3,880	14,240	508	9,493	338
Knehebech	5,496	24,300	795	16,200	530	5,895	24,652	842	16,034	561
Medingen	8,397	30,788	2,046	20,525	1,364	9,067	30,621	2,203	20,414	1,468
Gifhorn	12,764	28,028	2,118	18,685	1,412	14,020	28,457	2,226	18,971	1,484
Ebhtorf	5,138	18,382	979	12,254	652	5,934	21,286	1,113	14,191	742
Bergedorf	4,745	20,600	1,035	13,733	690	5,166	20,615	1,020	13,743	680
Ahlden	3,761	8,559	518	5,706	345	3,761	9,672	631	6,448	420
Preten	247	289	75	192	50	255	460	61	306	40
Obermarschacht	527	793	51	528	34	529	804	40	536	26
Celle	6,736	8,649	545	5,766	363	7,921	8,655	548	5,770	365
Fallingsbostel Gattau	7,745	24,784	758	16,522	505	8,789	24,587	1,186	16,391	790
Wathlingen	600	1,145	100	763	66	640	1,130	115	753	76
St. Michaelis	369	1,100	100	733	66	410	1,100	100	733	66
Ilten	5,648	13,075	565	8,716	376	6,349	13,051	566	8,700	377
Hermannsburg	2,262	5,580	230	3,720	153	2,348	5,580	230	3,720	153
Ludersburg	383	580	70	386	46	515	780	80	520	53
Burgwedel	5,592	14,754	801	9,836	534	5,782	14,754	801	9,836	534
Eichlingen	4,369	7,790	667	5,193	444	4,599	8,012	687	5,342	458
Bissendorf Essel	6,000	24,000	3,000	16,000	2,000	6,000	24,000	3,000	16,000	2,000
Gartow	4,833	6,000	2,000	4,000	1,333	5,441	6,000	2,000	4,000	1,333
Bergen	3,924	13,344	412	8,896	274	4,381	13,344	412	8,896	274
Maisburg	4,200	19,975	427	13,316	284	4,516	19,975	427	13,316	284
Scharnebeck Müslingen	2,653	7,455	570	4,970	380	3,005	7,455	570	4,970	380
Wistrow	2,814	11,376	1,328	7,584	885	3,173	11,376	1,328	7,584	885
Vehning	231	795	37	530	24	231	795	37	530	24
Sottan	959	1,430	92	953	61	990	1,430	92	953	61
Winsen	20,082	84,959	3,565	56,639	2,376	22,055	85,115	3,878	56,743	2,585
Winsen	2,827	11,790	860	7,860	513	3,149	11,790	860	7,869	573
	129,487	408,537	24,388	272,350	16,189	141,493	413,618	25,806	275,750	17,193

No. XLVII.

Mr. JACOB's Queries, addressed to the Board of Agriculture, at *Copenhagen*, with the Replies to them, inclosed in a Despatch to the Right Honourable the Earl of DUDLEY, by the Right Honourable H. W. WILLIAMS WYNN.

My Lord, Copenhagen, March 5th, 1828.

WHEN Mr. Jacob was here in the autumn, he drew up certain questions relating to the system of agriculture in this country.

They were referred to the Society of Agriculture; and I now have the honour to inclose the answers furnished by Mr. Drewsen, one of its most influential members, which contain a valuable mass of information, the correctness of which I have ascertained by inquiries from other quarters.

I have, &c.

(Signed) *H. W. Williams Wynn.*

The Earl of Dudley,
&c. &c. &c.

The following QUESTIONS are respectfully submitted, and Answers requested, as far as regards *Denmark Proper*, without reference to the Duchies annexed to it:—

1st.—*Regarding Land.*

WHAT is the value of 1,000 tonnes of land, or 1,200 English acres, taken at an average, in the usual proportions of ploughed land, meadows, woods and heaths, as they are found on an average in this kingdom?

What are the usual proportions that one of those descriptions bears to the others?

What is the cost of erecting buildings requisite for cultivating such an extent of land, including barns, stables, cow-houses, sheep-houses, and other similar erections?

At what annual rent could such land be let at the present period?

What is the annual sum to which the taxes amount, including those paid to the king, and to the several objects of police, such as the clergy, the poor, the repairs of roads, bridges, embankments, drainage, and similar purposes?

When an estate is let, is a prescribed term of years stipulated; and how long, commonly, is the term of the lease?

Is the rent always paid in money, or in some cases in produce or in labour?

When rent is paid in money, is it paid in yearly, half-yearly, or quarterly payments?

Are the renters of such land generally, or frequently, in arrears?

What measures are taken to enforce payment, when the renter fails of paying his rent in the time agreed upon?

Are the implements and cattle of the renter seized upon for the payment of the rent?

Is the legal process in such cases speedy or slow, and is it very expensive?

Are the taxes paid by the proprietor, or the renter?

What is the usual annual expense of keeping in repair the buildings on an estate of the extent assumed in these questions?

What is nearly the average extent of land cultivated by each of the individuals that rent estates?

How extensive are the largest and the smallest farms?

How many horses would be necessary to cultivate such an extent of land as is here the subject of inquiry?

What number of sheep, cows and oxen can be commonly supported on such an extent of estate as is here contemplated?

What is the usual allowance of hay and corn for each working horse through the year?

What is the usual allowance of hay, corn or oil-cake for each milch cow, during the period they are not pastured in the field?

What is the average weight of butter, annually afforded by each cow?

What is the average weight of cheese per annum, produced by each cow, when no butter is made of the cream?

With what substances, and with what quantities of such substances, are sheep fed, when not pastured in the fields?

What is the usual weight of flesh of sheep and oxen, when they are slaughtered, exclusive of the skin, horns and hoofs?

2.—*Regarding Labour.*

How many labourers, or how many families are necessary to cultivate the extent of land here assumed?

Are the wages of the labourer paid in money, or in produce,—such as food, drink, fuel, dwellings, or partly in one mode, and partly in the other?

When paid exclusively in money, how much for a day's work is paid to each man, woman and child respectively, in Summer and in Winter?

In some peculiar descriptions of labour, such as threshing, for instance, is the labourer paid by a proportion, and what proportion of his labour?

How much of corn, viz. wheat, rye, barley, and oats, can be threshed by the labour of ten or any given number of men in one day? In this question is included the labour of winnowing and cleaning.

What extent of land, in grass, can be mowed by ten men in one day?

What extent in clover, in sainfoin, or in lucerne?

How many tonnes of land in wheat in barley, in rye, and oats respectively, can be cut and bound into sheaves by ten men in one day?

What extent of land is usually ploughed by two horses and one man in one day, when grass land is broken up for the first time?

What extent is ploughed in a day, at the second and third ploughing?

How many cubic feet of dung can be loaded, discharged, and spread on the land in one day, by ten men?

3.—*Regarding Cultivation.*

What is the rotation of crops, and how many years does the rotation comprehend?

Is the fallow which first occupies the ground, made productive by the growth of any green crops?

How many times is the land ploughed, how many times harrowed, and how many times rolled during the fallow year?

What number of fudders of dung is applied to each tonne of land, before the first corn is sown?

Is the folding of sheep to manure the land in practice in Denmark?

How often during the rotation is the land manured?

What description of artificial grasses are sown when the land is laid down in grass?

Is the grass made into hay, or is it fed by cattle the last year of the rotation?

What proportion, in an average course of years, is there between the seed and the produce of the several kinds of grain, viz. wheat, barley, rye, and oats?

What is the difference in the increase in favourable and unfavourable seasons?

What weight of grass converted into hay may be considered the average production of ten tonnes of land, or twelve English acres, which has been sown with corn, and then laid down with grass?

What is the difference of the produce of such grass, between the first, second and third year of its being laid down?

How many pounds does the tonne of wheat usually weigh when first threshed?

What proportion of the wheat is taken out in cleaning to prepare it for the several foreign markets to which it is designed to be sent?

Is there in Denmark any general system for the maintenance of the poor and the sick ?

Does the system give its aid to those who are able to work, but who can obtain no employment ?

What proportion does that part of the population which draws constant or occasional assistance from the system bear to the number of the whole population ?

Is there any institution or place of reception for the children of the destitute poor, or of such as are illegitimate ?

What proportion do such children bear to the whole number of births ?

Is suicide more common in this than in other parts of Europe ?

What is the proportion of those who die voluntarily to the whole number of deaths ?

Before I reply to the Questions proposed, I deem it necessary to give a short description of the state of our Agriculture in general, as I cannot hope to be understood without doing so.

The questions regard chiefly an estate of 1,000 tonnes, or 1,200 acres; but as such are very rare, an estate of 5 to 600 tonnes, being in the possession of only the principal landholders, and as about nine-tenths of the lands in Denmark are cultivated by peasants, who generally possess an estate of 50 to 60 tonnes each, a calculation on an estate of the above-mentioned extent can give no correct idea of the present state of agriculture in Denmark.

The lands are in the hands of—

(A.) . . . Lords of the Manor.
(B.) . . . Gentlemen Farmers.
(C.) . . . Freeholders.
(D.) . . . Cottagers or Under-tenants.

(A.)—The estate of a lord of a manor is either cultivated by himself, or let out in farms of different extent, leased to tenants for their lifetime, and that of their wives. When the lands belonging to the manor are let, which is often the case, the situation of the persons who lease them may in some measure be compared with that of the English farmers.

These lands are let for a certain number of years, in general twelve, during which time the farmer is obliged to cultivate the lands, after a certain plan mentioned in the lease; to pay an annual rent in money or in grain, or partly in money, and partly in grain; as also to pay the taxes, and to take upon himself all the duties annexed to the tenancy of the land. But these being comprised in the number of the privileged estates, the former is free from certain duties imposed by government on the unprivileged estates, such as furnishing horses for royal journies,

working on the roads, &c. &c; but he is obliged to pay the poor tax. The rent is generally paid twice a year, and a farm is seldom let without the tenant having given security for the payment of the rent.

If he does not pay at the time appointed, he is summoned before the Court of Conciliation, when a respite is granted him, or a certain time fixed for the payment, and in case he fails to pay, his goods are distrained. If he does not fulfil the agreement at the time appointed, either his security must pay, or his moveables or cattle are seized. The process is neither expensive, nor of long duration. If the lease is expired, the farm is let to the highest bidder, and the farmer who leaves it has no right to demand any remuneration for the improvements he may have made. This is one of the reasons that the lands belonging to the manors are seldom improved, and that they cannot be raised above their present value as long as the lords of the manor do not make an alteration in the terms of these leases.

The farms belonging to the manor are let to the tenants during their own life-time, and that of their wives. The rent paid to the lord of the manor by these tenants, consists partly in a sum of money (in proportion to the quantity of the land, but always amounting to some hundred dollars), which the tenant pays on his taking possession of the farm, partly in the annual tithe, and partly in days work, with or without horses or waggons. The tenants are subject to this duty on the manor, and the lands belonging to it, whether leased out, or cultivated by the proprietor himself; he is also obliged to pay all taxes, to discharge all duties, and to perfom all labour imposed by the government. For the first of these obligations on the land the lord of the manor is responsible. On some estates the gratuitous labour, as far as regards the lords of the manor, has been abolished, instead of which the tenant pays an annual tribute to the landlord, according to agreement. These farmers may consequently be looked upon as tenants during the husband's and wife's life-time, paying their rent partly in money and grain, and partly in day labour. It might be supposed that the certainty of keeping these farms in undisturbed possession during the life-time of husband and wife, would induce the tenants to improve their lands as much as lay in their power; but want of skill and capital, much of their time being lost in the service of the lord of the manor, and in carrying tithes to him and the parson (in cases where they are paid by produce), and finally, the apprehension that, should they make improvements, the rent would be raised in proportion, if their sons should get the land after them, are causes which will always occasion such lands to remain in an unimproved state of cultivation. This proves sufficiently that long leases cannot be productive of material improvements, as long as the burdens on agriculture remain undiminished.

The purpose of the government in establishing these leases was to provide fixed abodes and subsistence for the peasants, as well as to protect the weak from the oppression of the powerful; for a tenant must be very neglectful of the duties imposed upon him before the lord of the manor has a right to turn him out, and, besides, this can never take place without the sanction of the courts. If he does not pay the rent, or the taxes for which the proprietor of the soil is responsible, the latter is authorized to seize and sell all of which he is possessed; but he has no right to dispossess him of his land, until reduced to such a state of poverty as that he can no longer pay his rent.

(B.)—The estates of the second order have their origin in the partition of the estates of the great landed proprietors, and the sales of the farms belonging to them. These estates, which in general are from 200 to 500 tonnes of land, and in the possession of gentlemen, are usually cultivated by the proprietors, who may be compared to the gentlemen farmers in England. These lands are the best cultivated in Denmark, as the proprietors generally possess skill and industry, as well as the means of improving them; and as they are conscious their children will profit by their labours, they do not work merely for the present moment. The number, however, is not considerable; first, because our laws prohibit the uniting several farms in one estate; and partly because the sons of persons who cultivate farms are obliged to serve in the army, from which those are exempted who cultivate privileged lands, or those belonging to the manors.

(C.)—The freeholders are peasants who originally lived on the estates of the Crown, and to whom the king offered their farms, on the condition of their paying a certain fixed sum which generally remained as first mortgage on the farm, of which they had only to pay the interest. This example was followed by several gentlemen and noblemen, particularly at the commencement of the French Revolution; and by that means arose a considerable number of freeholders, who possessed farms of from 50 to 60 tonnes, invested with the full rights of proprietorship, and exempt from any service to the lord. The king had hoped that these peasants, who thus reaped the whole profit of their labour, and whose possession devolved on their children, might be excited to industry and activity; but experience has proved, that wanting skill, and often capital, they do not thrive better than the tenants. The glebe lands annexed to the parsonages may be considered as similarly circumstanced, consisting of 60 or 70 tonnes; these are cultivated by the parsons during the time they hold their benefices, and being in the hands of a comparatively enlightened class, ought to serve as a model of good cultivation to the neighbouring peasantry. But generally these parsons leave the University with but little knowledge of agriculture; besides,

sometimes wanting capital, and often leisure, they are unable to pay that attention to the culture of their land which might make it serve as a profitable model to others.

(D.)—A part of the lands of Denmark are cultivated by cottagers, or under-tenants. Their portions of land consist generally of from 3 to 5 tonnes; but then, considering the productions of Denmark in a commercial point of view, such cultivation cannot be taken into consideration, being merely the labourers of the larger estates, and having little or no surplus produce at their disposal.

After this rapid glance at our agricultural state, I proceed to reply to the queries submitted; but the proportions being very different in the several provinces, they can only be replied to approximatively; not with mathematical precision.

I suppose the estates in question to be either large properties of 500 tonnes, arable lands and meadows, or farms of 500 tonnes. As to estates of 1,000 tonnes, or 1,200 British acres, they are rarely found in Denmark. A tonne of land is 14,000 ells, or about 9,333 English yards.

FIRST.

An estate of 500 tonnes has generally from 350 to 400 tonnes of arable land, and from 100 to 150 tonnes of meadow land. The price of such an estate, on the supposition that the land is of a tolerably good quality, good buildings, and sufficient stock, would in the east of Jutland, fetch about 24,000 dollars silver; in the west of the same province, 15,000; in Sol-land from 50,000 to 70,000; and in Zealand 30,000. Considerable forests of course enhance the value, in proportion as vast heaths lessen it.

The rent of such an estate in the eastern part of Jutland, where there is no duty-work to the lord, is about 300 quarters of barley; in the western part, from 225 to 250; in Solland from 600 to 650; and in Zealand about 300 quarters. This is paid either in produce or money, after the average price of grain fixed every year, and for every province, by the bishop and chief magistrate of the district.

The estate must be delivered over to the farmer with a sufficient supply of stock and implements, and with suitable buildings; the outsides of which are kept in repair by the proprietor, and the inside by the occupying tenant. The farmer is bound to pay the taxes and duties, which upon the supposed extent and quality of estate amount to about 600 dollars. They are generally let for twelve years, and the rent paid twice annually. As the farmers pay either one term in advance, or give security, they are seldom in arrears. These farmers, though seldom getting rich, still upon the whole seem to thrive very well. If they do not pay at the time appointed, the rent is enforced in the manner already described, and the estate let to another. The annual repairs of the buildings may be considered about 100 dollars.

These farms are of different extents, but generally from 300 to 500 tonnes. Those that are above 500, or less than 250 or 300 tonnes, are extremely rare.

On an estate of 500 tonnes, the following number of cattle are usually kept; viz.

	Horses.
In Jutland, where the soil is heavy . . .	20
When the soil is light	16
In Solland	24
In Zealand	23

Further,

In Jutland, from 130 to 150 cows of middle size, and from 20 to 30 sheep, or from 150 to 180 oxen, or 20 cows and 1000 sheep.

In Solland, from 100 to 150 cows, and from 200 to 300 sheep.

In Zealand, from 120 to 140 cows, and from 30 to 40 sheep.

When a horse works hard, that is, for about 300 days in the year, it must have weekly 84 pounds of straw, 56 hay, 88 pounds of barley, or 96 of oats. Such horses are seldom on the grass for more than 90 days during the year.

A cow of the middle size gets daily 8 pounds of straw, and 8 of hay, during the 220 days she is in the stall: this is the rule generally adopted. When fed with potatoes, a cow must have from 26 to 52 pounds per day; but in that case she gets less straw and hay.

Oil cakes are not used, being too expensive, owing to the high prices which may be obtained for that article in England. In like manner corn is seldom used for food, except when the straw is very short, or when oxen are fattened. It is impossible to fix the quantity of corn used for the latter purpose, as it depends upon the degree of fatness to which the oxen are to be brought.

In Jutland, a cow is generally calculated to yield from about 64 to 84 pounds of butter annually.

In Solland, the same quantity.

In Zealand, 84 pounds, but then the value of the milk which is given to the calf and the swine must be deducted.

Cheese is very seldom made of unskimmed milk, and the few who do it, keep secret the mode in which it is effected.

The sheep are usually fed with straw and hay. It is generally computed that from seven to ten sheep (according to their breed) consume as much food as one cow, during the time that they are housed, which is 180 days, when proper care is taken of them.

When they are fed with turnips they get from four to six pounds a day each, and about two pounds of straw.

The breeds of cattle and sheep being very different it is impossible to ascertain their weights with exactness.

Fat oxen weigh in general from 300 to 500 pounds; cows from 250 to 400 pounds (when of middle size); a sheep weighs from 64 to 96 pounds. When I speak of middle-sized cattle, I always mean of a good Jutland breed.

SECOND.

On an estate of 500 tonnes they usually keep 14 labourers, three boys and ten maids where milch cows are kept.

When they keep oxen instead of cows, the above number of maids is unnecessary, as eight milk maids are usually the number kept, in those places where there are milch cows. When only sheep are kept, a less number of labourers is required, for in summer, one person with a dog may tend 1000 sheep, and in winter two persons are sufficient to take care of them.

If the above number of maids and labourers are kept, their wages and food amount to 15 or 1600 dollars per annum. These labourers usually get board and lodging, and certain stipulated wages; the amount of which is for a man about 30 dollars, and for a woman 15 dollars yearly.

If they get board wages, a labourer receives from 24 to 40 schellings per day. When the corn is threshed by day, labourers who are paid in proportion to the work they do, generally receive one-sixteenth part of the corn threshed, when they diet themselves. A good thresher can thresh and winnow one barrel of rye, one and a half of barley, or two of oats each day, in favourable seasons. In unfavourable seasons something less.

As the labour is increased or diminished by the quantity of straw, the thresher of course performs more when the corn is abundant. One mower can cut down the grass upon 1400 ells in a day, but when the crop is clover, not quite so much. If the corn is not lodged he can reap 21,000 ells per day. In those parts where they work best, one woman binds into sheaves what one man reaps; but generally three women are employed to sheaf what two men cut down.

The quality of the soil and the hardness of the turf have a material influence on what can be done with a plough in a given time. When the work goes on briskly, one person is able to plough three-quarters of a tonne of fallow land per day with one plough and two horses, and one tonne when the ground is tilled for the second or third time, but not so much when the plough cuts very deep, eight or nine inches.

The time required for charging, discharging and spreading a given quantity of manure, depends entirely upon the distance to which it is to be conveyed, and on the length of the days, and, consequently, nothing can

be said with certainty on the subject; but in case this work is performed by the labourers, horses and waggons belonging to the estate, the calculation is included in the paragraph which treats of wages and horses.

THIRD.

The rotation generally comprises a space of twelve years, and, commonly, it is as follows: 1st year, fallow; 2d, wheat or rye; 3d, barley; 4th oats; 5th, clover; 6th, clover; 7th, wheat or rye; 8th, pease; 9th, barley; 10th, oats; 11th, clover; 12th, clover. When the soil is fertile the fallow is sown either with vetches, or mixed of vetches and oats, which is cut green, or with potatoes, but seldom with turnips.

It depends on the quality of the soil, how often the fallow is ploughed when it is not to be sown. The strong soil requires more tilling than the light; but in general the soil is ploughed once in autumn, and three times during the ensuing summer. As often as the weeds appear it is harrowed until it crumbles; this is easier on the light than on the heavy lands. The roller is used when the ground is hard or clodded, otherwise not, and in that case it is harrowed and rolled alternately until it is quite crumbled. From 24 to 30,000 pounds of manure are, upon an average, used for each tonne; and if the rotation lasts for 12 years, the ground is generally manured twice. On those estates where large flocks of sheep are kept, they are usually folded for the purpose of manuring the land. At the conclusion of the rotation the field is usually sown with red clover; and if it is to be laid down for several years, different sorts of grass are sown together with, or sometimes without the clover; amongst these, the most common are solium perenne, bromus avenarius, bromus mollis, and holcus lunatus. The first year's produce is usually cut, but during the ensuing years it is used for grazing cattle and sheep. The average produce of an estate of the above-mentioned extent, when the lands are of a middling quality, may be estimated at 2,000 barrels, or 1,000 quarters of grain of different kinds, but in unfavourable seasons it is often reduced to 1,200 barrels. This country, however, is seldom subject to bad crops; for if we have sufficient rain once or twice before the latter end of June, we may be sure of a plentiful produce.

The crops of hay are much more uncertain and precarious than those of corn. The greatest part of our hay is cut on the meadows. When they are flat, they suffer in spring by the night frost; and when the grass grows on elevated grounds, the hay fails if there is a want of grain. The quality of the meadows is very different. Upon an average, a tonne yields from one to four loads of hay of 800 pounds.

Meadows that produce more than one crop per annum are very rare.

A barrel of wheat weighs from 208 to 224 pounds.

FOURTH.

All the poor who are really in distress are supported by the parish to which they belong. In each parish there is a commission, consisting of the clergyman, the master of the police, and a number of the inhabitants, who regulate what the poor are to have, and impose the contribution on all the inhabitants. It seldom happens that those who are out of the villages, and are able to work, want occupation, and if it happens, it is but momentary; but if such a person is able to prove he is not able to procure any work, he is supported by the parish until he can procure it, as the laws of the country provide against any one suffering from the absolute want of food.

The proportion of the number of poor who are supported by the parish, to that of the inhabitants in general, is uncertain, but in general it may be considered, that one-sixteenth or one-twentieth part receives support; but of these only one-fourth is a permanent charge on the parish. If the parents are unable to maintain all their children, they obtain assistance. Orphans are maintained at the expense of the parish. He who confesses himself to be the father of an illegitimate child, is obliged to pay an annual sum of money until the child has attained a certain age, by which means the mother is generally enabled to bring it up herself. It cannot be denied that the present regulation, which obliges every child to go to school from its seventh year, has contributed in a great measure to the increase of the number of children supported by the parishes.

For it will not serve the purpose of either manufacturer or peasant to take children into their service who are obliged to spend half the day at school until they have attained their fourteenth year, the period at which they are confirmed; they therefore remain an incumbrance upon the parent until that age. But, on the other hand, it has produced the advantage, that there are very few young men in Denmark, even amongst the peasants, who cannot read and write, and who have not some knowledge of arithmetic. And I say with John Sinclair, "why should not every man reap the advantages which result from education"? I have no material which enables me to reply to the question regarding the proportion of illegitimate children to the number of those born in wedlock, but the proportion is not inconsiderable. For the same reason, I am unable to draw any proportion between the deaths occurring by suicide, and those arising from natural causes; but I may venture to state, that cases of suicide occur here less often than in most other countries.

We live here under an absolute but mild government; we are prosecuted neither for political nor religious opinions, nor need we fear spies

nor inquisition; and we dwell where those who are able and willing to work scarcely ever want employment.

Suicides, therefore, occur either in the higher societies, induced by luxury and the ruin resulting from it, or amongst the lower orders, induced by drunkenness and its attendants.

But these faults not being common in this country, suicides are infrequent.

NOTICES

RESPECTING THE COMMERCE

OF

THE BLACK SEA AND OF THE SEA OF AZOFF;

MORE ESPECIALLY AS REGARDS

THE TRADE IN WHEAT.

NOTICES, &c.

THE commerce of the Black Sea had been long exclusively carried on by the Turks.

After the Russians had gained possession of Taganrog, of the fortresses of Kertché and Jenikale, in the Crimea, and that of Kinburn, on the river Dneiper, the treaty of Kainardy, concluded in 1774, ceded to their flag the right of navigating the Black Sea, with any vessels not exceeding in burden 420 tons*.

Though, by subsequent hostilities, this treaty had been frustrated at several periods, during each of which the Russians had extended the maritime frontier of their southern dominions; yet, as far as regarded that nation, in the intervals of peace, it was generally observed.

The court of Vienna claimed an equality of privileges for their flag, which was at length granted to it in the year 1784.

By the diplomatic arrangements, made at the time of the treaty of Amiens, the navigation of the Black Sea was declared to be also free to the flags of England, France, Prussia, Spain, Naples, Holland, and Ragusa.

The importation of all foreign articles into the Russian territory is exclusively confined to the ports of Odessa, and of Theodosia, or Kaffa, in the Black Sea, and to Taganrog, in the Sea of Azoff; and hence they may be viewed as the depôts in which the native productions are collected, and from whence they are shipped to foreign nations.

* Tuckey's Maritime Geography and Statistics.—Vol. II.

Odessa was, by an imperial Ukase, dated 7th February, 1817, declared a free port, and the inhabitants exempted from taxation for thirty years. Since that period the population has rapidly increased, and is said at present to amount to about 40,000 souls.

The entrance to the Black Sea may be described as tedious rather than dangerous, from the constant current which rushes out of it towards the Mediterranean, through the Straits of the Bosphorus and the Dardanelles. It requires a fresh breeze to enable the vessels to stem these currents; but as the anchorage is good, they can ride in safety in any part of the channels till a leading wind arises.

The Black Sea receives into its bosom the fresh water of the largest rivers both of Europe and Asia. The saline parts are hence so much diluted, that, with a slight frost, the surface becomes covered with ice; hence, during great part of the year, scarcely any navigation is attempted. The vessels that resort to Odessa seldom arrive at that port before the latter end of May; and those whose cargoes are not completed before the end of October, more frequently wait the return of spring, than adventure to face the dangers of an autumnal or winter passage.

At Taganrog the frost commences earlier, and continues longer, than at Odessa, so that there are scarcely more than four or five months in each year during which the Sea of Azoff can be safely navigated.

The Black Sea is free from rocks and shoals, except some of the latter, at the mouths of the Danube, which may be easily avoided; but it is peculiarly subject to dense fogs, arising from the height of the mountains which surround it, that impede the winds, which in open seas serve to render the atmosphere clear. It is supposed the epithet *Black* has been given to this sea, from the darkness of the fogs that usually cover it.

The vast influx of the waters, from the copious streams

that empty themselves into the Black Sea, causes a great variety of currents and eddies, changing their force and direction frequently, and thereby creating a risk, with which such vessels and such commanders as usually navigate that sea are ill calculated to contend.

All the seamen in the Levant are so much accustomed to steer by the land, that few of them know the use of the compass, and still fewer that of the sextant or quadrant.

In returning to the south, it is frequently very difficult to hit the narrow mouth of the Bosphorus, and as the ships are not well calculated to lie-too in a gale of wind, if the fogs cause them to miss the channel, they are very frequently wrecked on the iron-bound shores which extend on both sides the narrow entrance.

The length of the passage from the Archipelago through the Islands, the Dardanelles, the Sea of Marmora, and the Bosphorus, to the Black Sea, is very great; and, in addition to this, must be added the period of quarantine. These circumstances increase the expenses of navigation, and the risk, even more than the expense of it.

Although the chief object in these Notices is to take a view of the Trade in Wheat, yet it may not be improper to enumerate, briefly, the chief articles which compose the exports and imports of the countries we are viewing.

The other kinds of corn, such as barley, oats, and peas, are only occasionally shipped from Odessa*, and the quantities are but small. Potash forms an article of some importance, and is chiefly sent to the French ports.

The quantity of wool, both fine and coarse, has much increased, and now is stated to amount to 60,000 poods, or about 2,250,000 pounds annually, being the product of 450,000 sheep. It is evident from the average weight of

* Letter from Messrs. Della Vos, Fils, and Co., dated 19th of October, 1826.

the fleeces (five pounds), that the greater part of this wool must be of the coarser kind.

The inferior wool is consumed by the Russians, and the finer has been bought up for the English market.

Tallow is an article of much consideration, and is represented to be superior in quality to that exported from Petersburg. Hides are represented as in demand for England.

Large quantities of iron are brought from the mines of Siberia, to Taganrog by the rivers, and from thence conveyed to Odessa, where a stock is constantly to be found.

Copper, both in bars, and rolled into plates for the sheathing of ships, is brought from Siberia in the same way.

There is a trade for more minute articles, but they very rarely are in demand at any considerable distance from the ports whence they are shipped. These are, caviare, wax, salted fish, salted meat, and butter, sail-cloth, cordage, and timber.

The import trade at Odessa is very insignificant, and is thus stated:—

"The little luxury, and the united wants of the more numerous classes of the city and the interior, causes the importation to be much less active than the exportation. We supply only the town, some districts of Poland, and the provinces of Taurida, Kherson and Katherinoslaw, a circle too contracted to make us hope for extensive sales of foreign productions*."

The most valuable articles of import are coffee and sugar. The sale of the latter is stated to be about 2,500 quintals, equivalent to nearly 200 hogsheads.

The chief articles supplied from England are tin in bars, and sheet tin.

From Sicily, and from the continent of Italy, and from the south of France, the imports are wines, oil, oranges, dried

* The import of foreign goods is checked by the rigid search at the gates of Odessa, of all persons and packages passing through them.

fruits, lemon juice, orange peel, sulphur, and some woods for dyers.

The imports and exports at the other commercial cities on the Black Sea, and on the Sea of Azoff, are so nearly similar in kind to those of Odessa, that no further notice need be taken of them. It may, however, not be improper to observe, that the products of Siberia are all brought to Taganrog; and, what are wanted of them at Odessa, are sent by sea.

The exports from Odessa far exceed, in amount, the imports to that city, the former appearing in the two years 1816 and 1817, to have been 79,674,300 roubles, or about 3,319,000 pounds sterling, and the latter only 41,182,310 roubles, or 1,715,929 pounds sterling*.

The balance of payments is made, in part, by means of specie, brought by the traders, in Greek, Ionian, and Maltese vessels, whose capitals are invested in a kind of roving commerce among the different ports of the Levant.

That part of the produce which is shipped to countries, or on account of merchants established in countries, out of the Mediterranean, is paid for by bills of exchange, which, in Odessa, are at all times negotiable, according to the rates of exchange, on the several commercial cities of Europe.

The mode found most advantageous by the English merchants†, is to lodge funds, or a credit at St. Petersburg, and to direct the amount of goods shipped at Odessa to be drawn for by bills on that place, at short dates.

After these previous remarks, it may not be improper to proceed directly to the consideration of the trade in wheat; which, as it is the chief object of the commerce of the Black Sea, is at present the most interesting subject of enquiry to the government of Great Britain.

* See Despatch from Sir D. Bayley, B. T.

† See Mr. Hemmerick's Letter.

The shore of the Black Sea, from the mouths of the Dniester to those of the Don, is surrounded with the Steppes, known to the ancients by the name of the *Sors Deserta*, and at present nearly in a state of nature. From the sea to the northern limit of this Steppe, is a distance, varying in extent, of about 100 English miles. Most parts of this Steppe are said to be calculated, with moderately good husbandry, for the cultivation of wheat; but there is a want of water, and no trees grow on it.

From February to May the growth of the grass is most luxuriant, but in the latter month it begins to wither, and, in the summer, the land is so totally deprived of all verdure, as to present the picture of a dry sand bank, on the sea shore. The first rains of autumn cause vegetation to shoot forth again with great rapidity, till it is checked by the sharp frosts of November, or, more commonly, of December.

Some slight attempts appear to have been recently made, upon a small scale, to cultivate the Steppes with corn; but the inducement to rear sheep and other cattle has been so powerful, that, from cultivators, the new colonists have mostly become shepherds, and herdsmen.

It is, then, from districts, none of which, except in small strips, approach nearer to the sea than 100 miles inland, that the whole supply of wheat to the trade of the Black Sea must be brought.

The northern border of the Steppes is surrounded by an arc of a circle, on which wheat is well and productively cultivated, and from which the main and most natural supply is drawn, to the shipping port of Odessa.

The limits of this are of various and indefinite extents to the north; and the distance from which wheat is brought to Odessa, is extended or contracted, as the price there is high or low. It would be difficult, with the most copious data, to generalise, and to calculate with accuracy, the cost of wheat to the growers of an extent of country so large as is here re-

presented. It is only possible to approximate to accuracy in any case; and, with the only document now at hand, even that approximation must be viewed with diffidence, and received with hesitation.

The spots nearest to the sea produce almost exclusively a spring-wheat, technically called *hard* wheat; and described in the islands, and on the shores of the Mediterranean, in their patois, by the name "*coa di azzargui*," or heart of steel.

Beyond those districts, the land produces both the hard and the soft wheat, the latter of which only is adapted to the markets of England.

At still greater distances from the sea, and especially in the Polish provinces incorporated with the Russian empire, the cultivation of wheat is almost exclusively confined to the winter or soft wheat.

From the internal evidence, arising from the circumstance of the product of hard and soft wheat being nearly equal*, and from the expense of conveyance to the coast, it is fair to conclude that the paper, intitled "Calcul Approximatif," furnished to me by Mr. Yeames, his Majesty's Consul at Odessa, is an estimate of the cost of production for some southern part of the province of Podolia, at a distance of about 250 miles from Odessa.

The land appears to be moderately productive, as compared with our agriculture; but most exuberantly so, when compared with the other parts of Russia, of Poland, and of Prussia.

The estimate is an increase of seven for one at harvest.

On an estate, of which about 2,000 English acres are arable

* Since this paper has been drawn up, some doubts have been raised as to the proportion between the hard and soft wheat being equal. It has been suggested by one individual, who resided at Odessa, that the soft wheat is by far the larger part, when no extraordinary demand causes an increased sowing of hard wheat.

land, and on which are 500 slaves, the cost of producing wheat, and conveying it to Odessa, appears to be eighteen roubles the tchetvert, or about 20*s.* 6*d.* per English quarter.

In the estimate, interest, at the rate of five per cent. per annum, is reckoned on the value of the slaves. No other interest on the cost of the land, nor any thing for rent is charged.

The cost of conveyance from the place of growth to Odessa is calculated at the rate of 4*s.* 4*d.* the tchetvert, or about 5*s.* 9*d.* the quarter.

Upon these data, if they are accurate, we find the cost of wheat upon the spot to be about 14*s.* 9*d.* the quarter, if no value is affixed to the soil on which it grows.

The value of the slaves, including men, women, and children, is stated to be 7*l.* 10*s.* per head. Whilst, in the calculation of the expenses of cultivation, 7*s.* 6*d.* per year is reckoned for interest on the value of each slave, there is deducted from it the profit which the proprietor gains by the sale of whiskey to his slaves, of which he has a monopoly, and the rent of the houses in which they live. The whiskey produces from each 4*s.* 4*d.* per year; the rent of the houses (167 in number) yields about 1*s.* 2*d.* per head. Thus 5*s.* 6*d.* per year, made from each slave, reduces to 2*s.* per year, according to their number, the annual value of the land, and of the labour of those who are bound to work it.

It was usual, in the Russian dominions, to estimate the value of an estate, not by the extent of the land, but by the number of slaves upon it; thus, if an estate had 1,000 slaves, it was considered to be equivalent to an annual income of 1,000*l.* sterling; the value of the land and of the slaves being considered together to produce to the owner at the rate of 1*l.* annually for each human being settled on the property.

The estimate we have been considering is made on the supposition of no profit accruing to the proprietor; and the price necessary to indemnify him is 14*s.* 9*d.* per quarter on

the spot where it is grown, or 20*s*. 6*d*. when delivered at the port of Odessa. In order to produce a profit of 20*s*. per head, the price of wheat, at the place of its growth must be, instead of 14*s*. 9*d*. per quarter, raised to 20*s*. or 21*s*.

From March 1814, to December 1818, the average price at Odessa was 39*s*. 1*d*., when the gains of the proprietor must have been at the rate of 34*s*. or 35*s*. per head on the number of slaves.

As, since 1818, the price has been continually declining, till, by the most recent accounts, it has fallen so low as from seven to eleven roubles the tchetvert, or from 7*s*. 9*d*. to 12*s*. 8*d*. per quarter at Odessa, it is not strange that the distress among the proprietors and farmers in the interior should be so severe as is described in the "Calcul Approximatif;" which says, "that half the farmers of land have been already ruined; whilst the proprietors, not being able to subsist on the low income derived from their estates, are loading them with debts which they are unable to discharge; and that all the courts of the country are filled with the business of liquidation and sequestration."

As Odessa is the place where the greatest number of mercantile establishments are fixed, and, consequently, regular rates of exchange with the money of other countries are settled; as it enjoys many exclusive privileges for trade, and as the harbour is capacious and secure, it has become the chief place for the trade in wheat.

It is collected there from a vast extent of country, and brought by water as well as by land carriage.

By water carriage, the first to be noted is that wheat which comes from the mouths of the Danube. It is grown either on the banks of that river, in the province of Moldavia, or in Walachia, near the Pruth, before that stream falls into the Danube.

The navigation from the Danube is dangerous though short. The wheat is conveyed in uncovered vessels, and frequently

receives moisture in the passage, and thus becomes damaged before it reaches a market.

A difference in price is made, in the ports of the Levant, between the land and the river brought corn.

A very intelligent and accurate officer in his Majesty's navy, who visited almost all the ports in the Mediterranean, in the ship which he commanded, says, "Several cargoes of Odessa wheat, brought to Malta on government account, were found to be quite spoiled, from the want of care it had suffered on the river."

Some wheat comes from Podolia, by the river Dniester, to Tiraspool, and from thence is conveyed by carts to Odessa; but the far greater part of the growth of that province is brought the whole way by land carriage.

The wheat which grows at Kherson and in its vicinity, as well as much brought down the Dneiper, from the provinces of Kiewand Katarinoslaw, is transported to Odessa.

The vessels are constructed there, and known in the Black Sea by the name of Lodhi: they are better calculated for the conveyance of wheat than the open vessels of the Danube; though that brought by them is less fit for shipping to distant markets than that which arrives by land carriage.

On some occasions, when attracted by high prices, the wheat which descends the Don to Taganrog has been shipped from that port to Odessa, but of late years scarcely any has been conveyed in that direction; but the wheat from the Sea of Azoff is shipped direct to the depôts in the Mediterranean, where the price-currents indicate the wheat of Taganrog to be of a somewhat better quality.

Though it has appeared to be right to notice these channels of supply, the whole of them produce a quantity of wheat very much less than that which is brought by land carriage.

The small waggons with wheat begin to arrive at Odessa in the month of May, but the greater portion of them do not reach that place till June or July.

Some days, in the two latter months, present the curious spectacle of five or six hundred, and occasionally, of even a thousand of these vehicles entering the city.

Each of the waggons, drawn by two oxen, carry about four quarters*, so that in the year 1817, when the trade was the most extensive, there must have arrived, supposing three-fourths of the corn to have been brought by land carriage, about 160,000 of the vehicles, in the six months from May to October.

In a country where the labour of man and of cattle, and the prices of the bare necessaries of life are very cheap, this land carriage maintains its due proportion of low rate.

Two oxen cannot travel over such rugged hills and deep sands, as are to be found between the corn-growing districts and Odessa, when drawing a ton weight, at a greater rate than ten English miles per day.

Each hundred miles will thus require ten days work for two oxen and one man, to proceed to the port, and about seven days to discharge the loading and to return with the empty carriage.

The rate of hire for a man and two oxen is, at least, in Podolia†, sixpence per day.

Where pasture is abundant, the oxen may be fed for a mere trifle; but in the journey of near one hundred miles across the Steppes, in the months when the greater number of carriages pass over it, the vegetation is wholly burnt up, which, with the scarcity of water, must cause some expense in the maintenance of the cattle.

* It has been recently ascertained that each of the waggons convey eight sacks of wheat, the sack containing a Polish korsec, equal to three bushels and one peck, Winchester measure. The load of two bullocks being thus three quarters and two bushels, instead of four quarters, as here calculated, will make the cost of conveyance amount to about one-fifth more than appears by the estimates in this paper.

† See Appendix to Jacob's Report, page 133.

If, for their food and water, an allowance be made of 1*s.* 6*d.* for the seventeen days, and it be added to the hire of the man and the oxen, it will make the cost of conveyance for the four quarters of wheat, amount to 2*s.* 6*d.* per quarter for each hundred miles.

This is only an approximation to accuracy, but it does not appear to be erroneous to any noticeable extent, as far as the facts at hand can discover. These facts, as far as they go, seem to confirm the calculation here made.

In the letter of Messrs. Della Voss, Son, and Co. of 19th October last, it is said, that the lower descriptions of soft wheat had been disposed of "*a une bagatelle au dessus du prix de roulage.*"

The lowest prices for that wheat had been from to 78½ roubles the tchetvert, or from 7*s.* 9*d.* to 9*s.* 6*d.* per quarter.

As most of this comes from a distance of near 300 miles, if the previous estimate of the expense of carriage be right, it must have amounted to about 7*s.* 6*d.* per quarter, which would leave the grower a mere trifle indeed.

In the extract of a letter of the 30th June last, from Messrs. Walther and Co., of Odessa, furnished by Mr. Hemmerick, it is stated that the price of soft wheat is from 9 to 12 roubles the tchetvert, or from 10*s.* to 13*s.* per quarter; and adds, "the Polanders will not be able to cover their expenses of transport."

If by Polanders, here, is meant the persons living in what is now called the kingdom of Poland, they are about 400 miles distant from Odessa; but if it means the inhabitants of Podolia, which was formerly a part of Poland, their distance is from 250 to 330 miles.

According to the estimate here made, of the expense of conveyance, the first of these would expend 10*s.* per quarter, and the second from 6*s.* 3*d.* to 7*s.*, according to the distance, before the wheat could be offered for sale.

To judge from the communications made in the letter

quoted, it would appear that if any error has been made in the estimate of 2*s*. 6*d*. per quarter for carriage, for 100 miles, it has been in under, rather than in over-rating the cost of it; and that error is more likely to have been made from the general impression, arising from vague reports, that the expense of transport by land is little or nothing in Poland or Russia.

Such an increased demand as would attract the wheat at 400 miles distance, would have a general influence on the cost of transport, and raise it very far beyond the limits which have been estimated, and even beyond any that would be easy to calculate.

From what has been already stated, it will naturally be inferred that the supply of wheat to be found at Odessa will greatly vary; and in some measure be found to correspond with the abundant or precarious harvests of the countries which are sufficiently near to draw their substance from that port.

In common seasons the quantity of hard and soft wheat brought to Odessa is very nearly equal, though the latter rather predominates; but in those seasons when the harvests have proved very deficient in other countries, the hard wheat has been known to have exceeded the soft, in the proportion of two, and even sometimes three to one.

The hard wheat can at any time be increased, according to the inducements which the state of the harvest immediately preceding may present.

The soft wheat must be sown in autumn, and the ground prepared by a due course of husbandry during the harvest, and in some degree before it is gathered in.

When its deficiency or profusion can be ascertained, it is too late to make any great variation in, or addition to, the previously designed plan of cultivation.

The hard wheat, on the other hand, is sown in the spring, when the state of the last year's crops is well known.

The soil most favourable to its growth is of a light description; and there is a sufficient interval, after the cessation of the frosts, to make such a fallow as will yield a moderate crop of wheat, and a remunerating one, when the prices are very high.

As far as recollection can be relied on, it has been represented that the great increase in wheat, at the several seasons of scarcity, has been observed to be almost solely confined to that of the hard description, and that no very great augmentation has been noticed in the quantity of winter or soft wheat, after a disastrous harvest.

The quantity of wheat exported from Odessa, and the average price it bore there, is as follows, according to the paper communicated by Mr. Yeames and the letter of Mr. Hemmerick:

Years.	Average Price.	Number of Qrs.
	s. *d.*	
1814	30 5	187,685
1815	34 6	372,309
1816	45 11	801,591
1817	49 11	870,893
1818	36 3	538,513
1819	23 5	627,926
1820	23 8	534,199
1821	27 0	435,305
1822	20 11	342,752
1823	17 4	443,035
1824	14 11	427,767
1825 about	13 6	570,370
		6,152,345
Average quantity of the twelve years		512,695

Although, from some obvious discrepancies in the several authorities from which the foregoing account is framed, it cannot be taken as absolutely correct, or be a fit subject of implicit confidence, yet, as the only material at hand, and for

the purpose chiefly of comparison, it may deserve some attention.

It may not be an unfair conclusion to derive from the observations before made, that the quantity of soft wheat annually shipped at the port of Odessa, during the last twelve years, is somewhere near to 250,000 quarters.

The hard wheat appears, by the accounts of prices collected in various parts of the Mediterranean, to be higher than the soft wheat.

It is understood to be better calculated for making Vermicelli, Macaroni, and other similar preparations, than for bread.

It appears, by the notice of Mr. Hemmerick, to be of greater weight, and to contain a less proportion of bran.

It is also shown, by the recapitulation of the stock accumulated at Odessa, on the 19th of October, 1826, in the letter of Messrs. Della Vos, Son, and Co., that when the quantity of soft wheat amounted to 650,000 tchetverts, that of hard was only 50,000 tchetverts.

If from the 250,000 quarters of soft wheat, presumed to be thus annually exported, be deducted that portion of it which is of a quality so indifferent as to be unsaleable in our markets, unless in seasons of scarcity approaching to famine, it would be seen that, if no intervening and more beneficial market presented itself, a very small portion only could reach our ports.

In looking to the actual accumulation of wheat at Odessa, the circular letter of Messrs. Della Vos, Son, and Co., carries those internal marks of accuracy which entitle it to confidence.

According to that account, there was left in store,

Of the harvest of 1825	700,000	tchetverts.
Of the harvest of 1826	100,000	ditto.
Carried forward . .	800,000	

Brought forward	800,000	tchetverts.
From which may be deducted what was expected yet to be exported in the remainder of the year 1826	180,000	ditto.
Leaving thus	620,000	ditto.

Or 470,000 quarters for the supply of the next year.

The description of the wheat in store deserves to be noticed, and is,—

Tchetverts.		Price.
25,000	soft, first quality	11 to 13 roubles.
200,000	ditto, marketable	11 to 11½ —
425,000	ditto, inferior	7 to 8½ —
50,000	hard, all of marketable quality .	10 to 12 —

If we may be allowed to judge from the relative prices of the first and of the lowest quality, the conclusion would be, that a very small part of the 425,000 tchetverts would, under any circumstances, but such a disastrous harvest as that of 1816, be saleable in Great Britain, even if it should arrive here in good condition, which is, to say the least, very doubtful.

The export of wheat from Odessa is carried on, either on account of adventurers, who are owners of vessels, and by way of earning a certain freight, with the hope of a profit on the speculation, embark in the trade, or by established houses resident in that city or in other parts of Europe.

The proportion of one of these descriptions to the other varies according to the state of the general demand; when the demand is active the number of roving adventurers vastly increases, and the mercantile houses at Odessa are content with their commissions, and the profit they gain, as the medium of traffic between the growers and the ship-owners.

When the demand has slackened, and the price of the grain been consequently much depressed, the established houses have been induced to ship large quantities to distant markets on their own account.

This was especially the case in the years 1818, 1819, and 1820, when nearly all the houses at Odessa were thereby totally ruined, notwithstanding the enormous profits of the two preceding years.

The only document whose accuracy can be depended on, as to the number of ships loaded at Odessa, is a return of their number, and the flags under which they navigated, in the year 1817, viz.

Russian . .	480	Brought forward	890
Austrian . .	188	Sardinian . .	31
English . .	154	Neapolitan . .	7
French . .	43	Swedish . .	49
Spanish . .	18	Sicilian . .	2
Danish . .	7	Turkish . .	65
Carry forward	890		1,044

Of these, 933 returned with cargoes, chiefly of wheat, and the others wintered in the harbour.

It is very unusual for vessels from England to sail direct to the Black Sea. There are scarcely any goods from England to be conveyed thither on freight, and what goods are sent from thence to England can be transported more advantageously by such vessels as repair to Odessa, in expectation of finding employment when they arrive there.

The vessels described in the above statement as English, are probably, for the most part, owned by the Maltese, or the inhabitants of the Ionian Islands.

The vessels denominated Turkish are chiefly those belonging to, or navigated by, their Grecian subjects.

It is understood that, generally, the Greek ships, as well those belonging to Turkish ports, as those owned by the people of the Islands under our protection, are the property of companies, of which the captains and the sailors form a portion, and that each individual on board, in proportion to their respective stations, is interested in the success of the voyage.

Each ship is a kind of joint speculation, in some degree resembling the mode in which the English and the North Americans conduct their southern whale-fishery.

In a prior year, when a deficient harvest had occurred in the south of Europe, the number of vessels, loaded chiefly with corn, which cleared out from all the Russian ports in the Black Sea, amounted to 815.

As it shows, in some measure, the course of the trade in that year, (1803,) the following statement of the several ports from which they sailed, of the flags they bore, and of their professed destination, may not be altogether uninteresting :—

Ships loaded in 1803, *at*

Odessa	552	Brought forward	785
Taganrog	210	Kostoff	19
Kaffa	23	Sibastopol	7
Carried forward	785	Kherson	4
			815

Flags of the Vessels in 1803.

Austrians	421	Brought forward	784
Russians	329	French	15
Ragusians	18	English	7
Seven Islanders	16	Hydriots	6
Carried forward	784	Spaniards	3
			815

Destination.

Trieste	186	Brought forward	612
Messina	144	Marseilles	19
Cephalonia	103	Naples	10
Genoa	72	Malta	8
Leghorn	57	Tchmé	7
Corfu	26	Zante	4
Barcelona	24	Sailed without declaring the destination	155
Carried forward	612		815

The description given of the ships that are to be found in the Black Sea, in search of employment, represents them to be of an indifferent class.

They are for the most part badly equipped, and more calculated for the tranquil voyages on which they are commonly employed in the Mediterranean, than to encounter the storms of the Atlantic, the turbulent Bay of Biscay, or the foggy shores and the changing tides of the British Channel.

Though the seamen are expert and agile, they are timid in storms and dangers. The masters, who are accustomed to keep in sight of land almost constantly, are acute in the knowledge of land-marks, of rocks, of shoals, and of harbours, but are generally ignorant of the simplest principles of navigation; and, when out of sight of the land, can with difficulty determine what course to steer.

Wheat is a commodity that, of all others, for a distant voyage, requires firm, tight, and easy-sailing vessels.

In a rough sea, if the ship works much, as the cargo is stowed in bulk, it is always liable to shift in a gale of wind.

As there is no insurance of corn against damage by imbibing water, it is of the greatest importance that ships employed in carrying it should be free from leaks, and not be liable to "ship a sea."

From these circumstances, the freight demanded at Odessa, for ships well adapted to convey wheat to England, is much higher, even in proportion to the length of the voyage, than is asked for the freight of the same commodity to the ports of the Mediterranean; and much higher than the price paid for the freight of tallow and other goods.

Wheat is an article subject to quick alterations in price, and very extensive vibrations. Thus, at Odessa, in the month of March, 1817, it was at 58*s.* 6*d.* per quarter; and, in the month of September, in the same year, at 41*s.* 2*d.* per quarter; thus showing a change of thirty per cent. within six months.

Even in periods when no extraordinary, or, at least, apparent, changes have taken place, either in the consumption or supply, the wheat market has exhibited very great vibrations. Thus, in February, 1823, it was at 40*s*. per quarter in England, and in the following May at 60*s*.

Every prudent merchant will, in his choice of speculations, prefer those which can the most speedily be brought to their termination; and more especially so, when the subject of his speculation is liable to damage, as well as to quick and excessive vibrations.

Orders for corn despatched to Rotterdam, Hamburgh, or even Dantzic, may be executed within a short space of time; but if sent to Odessa, must keep alive anxiety, during a period in which four operations might be made to the Baltic, and six or eight to the Texel or the Elbe.

The want of such vessels as are well adapted for conveying wheat, is so much experienced in the Black Sea, and the freight, consequently, so high from thence to England, that the merchants at Odessa, in their circular letters to their correspondents, recommend them to despatch ships from the country, when they intend to make speculations in wheat.

Messrs. Walther and Co., in a letter dated 24th March, 1826, remark, "It will be requisite, to render an operation in grain more sure and regular, to send out ships for such cargoes as will be ordered, so that the frequent difficulties and disappointments arising from want of shipping may be avoided."

They further state, that "higher freights were offered, and paid *there* to vessels, than those for which charters were made in England, viz. 16*s*. to 18*s*. per quarter for wheat; whilst the freights agreed upon in England were 13*s*. per quarter, and 10 per cent. primage."

The distressed condition of the growers of corn, in the districts who send it by Odessa, may account for a circumstance which deserves to be noticed, and which is expressly

stated in all the communications made by the merchants at Odessa, to their correspondents in this country.

Contracts are made with the landholders for corn, when, before it is despatched towards the port, one half the amount is paid, and the other half on the delivery of the quantity for which the contract was made. The merchants at Odessa draw on those for whose account the purchases are made, at the time they make the payments.

If the speculative merchant in England sends orders to purchase, he must thus advance one half the amount, before he can ascertain the actual delivering; and the other half, before he can be certain that it is really shipped.

If there be an absolute want of ships in the Black Sea, fitted for the conveyance of wheat during a long voyage, the English merchant may suffer from the delay, in the alteration of price, far more than the loss of interest on a quick return, and the loss in quantity which wheat always suffers, when it is stored; to say nothing of the expense of warehouse rent.

If a ship be despatched from England for a cargo, she may be long detained on the passage: it has not unfrequently occurred, that numbers have been detained from six to eight weeks in the Dardanelles, for such a southern wind as would enable them to stem the current which constantly issues from the Black Sea; in such a case, or in the case, not less entering into the calculation of a prudent man of business, of the ship being wrecked on the passage outwards, the goods he has paid for may be left on his hands at a great expense, till the demand, on which his speculation was founded, has been supplanted by a superabundant harvest.

The fate of the few individuals, who in times of the greatest scarcity in this country, have embarked in the trade of importing wheat from Odessa, would present a striking exemplification of the risks that are here pointed out.

The knowledge of the scarcity, or of the superabundance of corn, is so quickly communicated to the countries which regularly yield a surplus, that few have had the foresight, though some few may have had the good luck, to anticipate their competitors in the race for making purchases at times of an approaching scarcity.

Before considering the countries among which the quantity of wheat collected at Odessa, and the other ports of the Black Sea, is distributed, it may not be unnecessary to remark the great difference between the demand for that species of corn, in the districts bordering on the Mediterranean, and those bordering on the Baltic and the German Ocean.

In the latter division, the chief grain consumed by the inhabitants for bread, is rye. Scarcely any wheat is eaten in the form of bread, and not much in any other form. Hence, though little wheat, as compared with the south, is grown, yet, for the sale of their small surplus, they find no purchasers in their immediate vicinity.

All they can spare, which in seasons of scarcity in England is increased by the practice of the most rigid economy, must be sent here in the first instance.

In the countries bordering on the Mediterranean, though fruit forms a large portion of the aliment of the population, and perhaps less bread is consumed in proportion to the number of individuals, than in the north, yet the consumption of wheat is very much greater, according to the numbers of the people.

From Cadiz to Constantinople, from thence to Alexandria, and along the whole shore of northern Africa, what bread is used is made wholly of wheat.

In the culinary preparations of pillau, vermicelli, and macaroni, the consumption of maize is very large.

In those countries, though sometimes highly fruitful, there

is a greater variation between the productiveness of different seasons, than is observable in a climate, whose summer heat is of a lower temperature.

From accounts, which have the appearance of accuracy, it would be a fair presumption, that in countries to the south of the 45th degree of latitude, the variation between one year and another is in the degree of two to one.

An account on which the securest reliance can be placed, showing the actual quantity of corn sown and harvested on the island of Sardinia, for each of the last ten years, illustrates and confirms this representation. In each of the years the quantity sown was nearly the same; but in some years of the series, the quantity harvested was double that of others.

This account is deserving of confidence, because the law which regulates the importation of foreign corn, and the exportation of their own, is dependant upon the results which arise from the statistical returns of the annual sowings and crops.

In the climates whose summer temperature is less, as between the latitudes of 45° and 55°, the variation of produce in the Ceriales has been stated to be not greater between one year and another, than in the proportion of five to seven.

Owing to these circumstances, it would be natural to infer that the prices of wheat at Odessa, and the other ports in the Black Sea, are regulated, in the greatest degree, by the abundance or deficiency of the harvests in their own vicinity; and, in a very slight degree, if in any, by the productiveness or the deficiency of our harvests.

In several years when our prices have risen, those at Odessa have fallen, and as frequently the reverse is to be seen.

In December 1819, the price of wheat at Odessa was 18*s*. 6*d*., and in December 1820, was 29*s*. 8*d*., or an advance of about 70 per cent.

In December 1819, the average price in England was

66*s*. 2*d*.; and in 1820, was 54*s*. 8*d*., or a decline of nearly 20 per cent.

In March 1816, the price of wheat at Odessa was 45*s*. 3*d*., and in December of the same year, 47*s*.; between the same two periods in England, the price rose from 55*s*. in March, to 104*s*. in December.

The other comparisons would equally show that the market of Odessa, and that of England, as far as regards wheat, have very little influence on each other; that the first is almost wholly ruled by the state of the harvests on the shores of the Mediterranean, and the latter chiefly by the abundance or deficiency of its own produce, with some occasional interference, when the ports are open for importation, on the part of the agriculture of Germany, Poland, and northern Russia.

There is, in fact, less influence experienced in the north-western part of Europe, by the variations in the harvests near the Black Sea, than there would be from those of Buenos Ayres, or the Cape of Good Hope, if their lands were to be cultivated, so as to produce much more wheat than their inhabitants consume.

There is, indeed, one case, in which, though of slight extent, the wheat trade of Odessa may have an influence on that of England or France. The wheat of Sandomir, in Poland, is among the best grown in any part of the world. The greatest part of this finds its outlet by the Vistula; but some of it is conveyed by land-carriage to Odessa. The cost of conveyance to the latter is so great, as to confine its use to that small class, in the vicinity of the Black Sea, who can afford to indulge in luxuries. When there is any trade to England or to France, the cheaper conveyance to Dantzic, and the shorter duration of the voyage to London, or to Havre, will naturally conduct the surplus into those channels. This description of wheat has the property of heating, when long confined in the ship's hold, so as to render it ill adapted for a long voyage.

The countries on the borders of the Black Sea, and of the Sea of Azoff, have a much more extensive range for the disposal of their productions, than those on the shores of the Baltic or the German Ocean.

They have the almost exclusive access to the Mediterranean from Asia Minor to Gibraltar. The countries on the eastern and northern shores of that sea are very densely peopled. Though various fruits are in abundance, and supply a great part of the aliment which is required, yet what corn is consumed, either in the form of bread, or for the culinary purposes of pillaus, vermicelli, macaroni, or others, is chiefly confined to wheat. Rice and maize do, indeed, come somewhat in competition with wheat; but the consumption of the former, on the European side, is inconsiderable; and, of the latter, is chiefly confined to a preparation well known in Italy by the name of polenta. Both are, however, less used than wheat.

The great variety of soils and climates comprehended in that portion of the earth, to which the wheat of the Black and Azoff Sea districts find access, added to the great variation in the productiveness of different years, affords a scope for mercantile operations, and for speculation on future prospects, which tend to induce much commercial enterprize. This accounts for the circumstance of the great number of ships which are constantly occupied in the Mediterranean, in what may properly be denominated "cruizing for a market."

The chief places to which wheat is supplied shall be here briefly noticed.

It is generally stated, that the supply of Constantinople requires annually 100,000 quarters of Black Sea wheat. The Greek Islands scarcely, on the average of years, produce sufficient wheat for their own consumption; and, in some years, require a large supply, which is furnished partly from the neighbouring continent, and partly from the Black Sea.

The Asiatic coasts of the Turkish empire, especially in

Anatolia, are nearly in the same predicament. At times the market of Smyrna is very favourable for the sale of the corn of Southern Russia. The Islands of Malta and Gozo produce only about half as much corn as the 120,000 inhabitants require.

Sicily, though it has greatly declined from its ancient productiveness, has still a quantity of grain to spare for the less fruitful parts of Italy in most years; and its wheat enters into competition with that of the Black Sea, in the ports of Naples, Genoa, and Leghorn.

There are few years, in which Tuscany grows a sufficiency of wheat; and its chief port, Leghorn, being one of those in which ships can unload their cargoes of corn, without being detained to perform quarantine, has been at all times a place of deposit for the wheat of the Black Sea. A market, at some price, may always be found there, as the capitalists are disposed to purchase; relying on the uncertain productiveness of some adjacent country, in which they may realise a profit, at no great distance.

Genoa, like Leghorn, is a port where wheat can be unloaded within the bounds of the Lazaretto. The country around it yields but little wheat; and, at some periods, it enjoys a trade in that article even as far as Switzerland. This internal demand, and the chance of advantageous re-exportation, induces much trade in corn. There is said to be seldom less than 100,000 quarters in store at the two ports of Genoa and Leghorn; and at some periods a far greater quantity.

Nice, though not having the same advantageous quarantine regulations, and, consequently, not being a depôt for corn, beyond its own demand, from the sterile soil which surrounds it, requires every year a large importation of wheat. That of Sicily and Odessa create a competition in its port; and the government draws a revenue by imposing a heavy duty on both.

During the scarcity in the early part of the year 1817, with wheat here at 105*s*. the quarter, when the merchants of England were ransacking all the world for grain, some cargoes of Odessa wheat were purchased by them from the stores of Genoa and Leghorn. Those of the cargoes that reached our ports in June and July were advantageously sold; but some few being delayed till August and September, arrived at a depressed market, and the parties interested congratulated themselves, at the close of the operation, on finding they had sustained only a very trifling loss.

Marseilles enjoys quarantine regulations similar to those of Genoa and Leghorn.

Though the Corn Laws of France have kept the ports closed against the introduction of foreign corn, for domestic use, yet it is allowed to be bonded for re-exportation. From the frequent local and partial scarcities which occur on the eastern coast of Spain, at which periods wheat is allowed to be lawfully imported, and, as is said, from the facility of its introduction by contraband, when not legally allowed, Marseilles has been a great depôt for the wheat of the Black Sea.

From thence, as also from Gibraltar, where there is generally some in store, it can easily be transported to Spain, to Sardinia, to Corsica, to Tunis, to Tripoli, or wherever scarcity has created a beneficial market.

The coasts of Barbary, though often having a surplus of wheat, much of which occasionally assists to feed Portugal, in some seasons has been afflicted with most deficient harvests. This was recently the case, in a remarkable degree. Tripoli and Tunis experienced, in the year 1820, a harvest most miserably short, and was supplied from other countries.

At Tripoli, the imports amounted to 421,000 kilos of hard, and 28,200 salms of soft wheat, or together about 80,000

quarters. At Tunis, and the other ports, the imports were also large.

Whilst in England, and the North of Europe, the favourable harvests caused wheat gradually to decline in price, from the middle of 1820 to the middle of 1821, the scarcity in Africa caused a considerable advance, during the same period, at Odessa, Messina, Genoa, Leghorn, and Marseilles.

At that period, it is said, wheat was even sent from Odessa to Alexandria, though Egypt has commonly more than sufficient for its consumption.

Want of accounts of sufficient accuracy has caused the ports of the Adriatic to be passed over without notice. Trieste has similar quarantine regulations to Genoa and Leghorn. Some wheat is stored there, and also at Fiume, much of which is grown in Venetian Lombardy; some is brought from the Papal States; some is furnished from the Bannat, and other parts of Hungary; but there is also a regular importation from the Black Sea for re-export.

It may not now be quite needless to institute a comparison between the benefit derivable at various periods, by the exportation of the wheat of the Black Sea to England, and by the exportation of it to several ports within the Mediterranean.

It is undoubtedly true that there have been periods, when the price of wheat has been so much higher in England, than in any of the Mediterranean ports, as to offer greater profits by exporting it to the former, than to the latter; but in almost every case it will be found that such prospects of greater gain have proved illusory.

The difference in the length of time has a peculiar influence on a commodity like wheat, which is liable to be injured by heating, when it is much, and for a long time, compressed into a confined space. Thus wheat stored in any building on land should be well ventilated, and turned twice a week to preserve it; an operation which is not possible during a voyage.

The risk from this accident is not merely doubled, when the voyage requires double the length of time, but increases in a compound ratio.

The risk of an unfavourable change in the state of the markets is also increased, by the prolongation of the time required for a voyage, and this is greater with respect to corn, than any other commodity except fruit, such as oranges, lemons, &c.

The transition from very high to very low prices, and the contrary, is both greater and more sudden in corn, than in most other commodities.

It is almost needless to add, that the greater capital required for a distant trade, operates as a bar to its eager pursuit; and that the peculiar circumstance, of the Levant shipping being joint-stock property, in which each on board has an interest, must render it an object of importance to realise profits, and to distribute them with the utmost celerity.

The several tables in the Appendix will show the prices of wheat during the last ten years at Odessa, at the several ports within the Mediterranean, as far as they have been collected, and in England.

The rate of freight has varied considerably during the series of years, being at some periods 24*s*. per quarter, at others 12*s*. per quarter, to London; and, proportionally, to the intermediate ports.

The present freight, as stated in the last accounts from Odessa, including primage, is 18*s*. per quarter. The insurance has varied, in nearly the same proportion, and, on the average, may be estimated at five guineas per cent. to London.

As corn is, however, only insurable against a total loss, and not against damage by leakage or heating, some liberal allowance must be made for that risk.

The answer to enquiries among insurance brokers, upon this, with the question to which it is a reply, is as follows:

Question.—"What premium would be required to insure corn against all risks; including those which may arise from imbibing sea or other water, and that arising from wheat heating during the passage?"

Answer.—"Insurances of this kind are seldom effected in this country, but, when done, it is with a warranty to pay average only, if it amounts to 10 per cent. or upwards; in which case, about double premium, or rather more, is given. Such insurances are more usual on the continent, and are estimated in about the same proportion."

Thus it is seen that, with double premiums, the whole risk is not covered; but there will remain at the risk of the merchant all that damage which may arise from the moisture, whether created by leakage, or by internal heating, that shall not amount to 10 per cent. on the whole value of the corn.

It cannot be materially wrong to estimate this at 2 per cent., thus making the whole insurance, on the average, amount to twelve guineas per cent. from Odessa to London, and proportionably less at the ports between the two places.

If the passage from Odessa to London be analysed, it may be divided into these proportions, viz.:—

1st. From Odessa to the Levant, including all the countries to the eastward of Malta, which may be represented as a voyage of one month, with the price of freight for wheat at 6*s.* per quarter, and the insurance on it at the rate of 4 per cent. on the cost, at the place of shipment.

2d. From Odessa, to all places between Malta and the Straits of Gibraltar, to be considered as a voyage of two months, with a freight of 12 and insurance at 8 per cent.

3d. From Odessa to London, a voyage of three months, with freight at 18*s.* per quarter, and insurance at 12 guineas per cent.

Although these limits cannot, in their nature, be accurate, yet, as facilitating calculation, they approximate sufficiently near to it, to be admitted in this case.

In the month of September, 1814, the price of wheat—

	s.	*d.*
At Odessa, was	27	3
Freight	6	0
Insurance	1	0
	34	3

at which price it could be sold at the Greek islands, at Smyrna, and the other parts of the Levant.

On the second division the rate would be thus:

	s.	*d.*
Cost of wheat	27	3
Freight	12	0
Insurance	3	0
	42	3

at which price it could be sold in the western division of the Mediterranean.

On the third division the rate would be thus:

	s.	*d.*
Cost of wheat	27	3
Freight	18	0
Insurance	3	0
	48	3

this being the price at which it could be delivered in London.

If a profit of 3*s.* a quarter could be realised at Constantinople, Smyrna, or Corfu, it would be more advantageous to the adventurers than 6*s.* at Genoa or Leghorn, or 9*s.* in London, because they, being both shipowners and merchants, would gain profits in the former capacity on each voyage, in addition to those accruing in the latter.

The only place within the Levant, of which any prices are within reach, is Smyrna, where it was at 34*s.*

Within the second of these divisions, the price at Genoa was 64*s.*, Corsica 71*s.*, Nice 63*s.*

At London, when a vessel from Odessa loaded in September would probably have arrived, the average price of all England was 67*s.* 6*d.*; but the wheat of Odessa is of such an inferior quality as to sell at least 10 per cent. lower than our general average quality. It arrives in worse condition than that which comes to us from Dantzic, because the same means are not resorted to for drying it perfectly, by exposure before shipment, as are practised in that city. It could not, therefore, be expected to yield more than 61*s.*

It is not within the bounds of probability, that vessels cruizing for a market, would leave those near at hand, where a certain and fair profit offered, for the uncertain, and even improbable, gain to be acquired by a distant expedition.

At another period, September, 1816, the price of wheat—

	s.	*d.*
First Division—At Odessa, was . .	45	7
Freight	6	0
Insurance . . .	2	0
	53	7
Second Division—Wheat . .	45	7
Freight . . .	12	0
Insurance . .	4	0
	61	7
Third Division—Wheat . . .	45	7
Freight . .	18	0
Insurance . .	6	0
	69	7

It is to be remarked, that at this period the freight had risen to the highest price ever known, and to London was 24*s.*, with the addition of 10 per cent. primage.

The insurance too had risen, so that the wheat of Odessa would have really cost in London, from 78*s.* to 80*s.*

No return of prices for this year are at hand, within the first of the three divisions here made, except at Fiume, where the price was 88*s.* 11*d.*

In the second division, the price at Palermo was 71*s.*, in Corsica 92*s.*, at Genoa 79*s.* to 82*s.*, at Nice 85*s.*, and at Marseilles 95*s.*

The price in London, by the general average, was 103*s.*

In September, 1820, the price of wheat—

	s.	*d.*
First Division—At Odessa, was . .	24	0
Freight	6	0
Insurance	1	0
	31	0
Second Division—Wheat . . .	24	0
Freight . . .	12	0
Insurance . .	2	0
	38	0
Third Division—Wheat . . .	24	0
Freight . . .	18	0
Insurance . . .	3	0
	45	0

In the first division, no prices are known but Fiume, which was 37*s.* 1*d.*.

In the second division, prices at the following places are thus returned, Tunis 65*s.*, Tripoli 68*s.*, Naples 50*s.* to 56*s.*, Messina 52*s.*, Palermo 42*s.*, Corsica 50*s.* 9*d.*, Genoa 41*s.*, Nice 44*s.* 11*d.*, Marseilles 89*s.*

The average price in England, when a vessel loaded at Odessa might have arrived, viz. in December, was 53*s.* 9*d.*

The comparative statement of the markets of Odessa and London, and of the several intermediate places, for the whole series of years between 1814 and 1826, would yield results

so similar to those presented by the three here selected, that it does not appear necessary to multiply instances.

All tends to show that, however the price may rise or fall at Odessa, there will always be markets within the Mediterranean, which will offer, to the persons engaged in the trade of wheat, greater benefits than they can expect to obtain by sending their cargoes to England.

Besides the places which are noticed, the partial produce of some seasons causes a demand greater or less, for wheat in other parts of the coast of Africa, occasionally even in Morocco itself.

Sardinia and Majorca some years need a supply.

The whole eastern shore of Spain is sometimes under the necessity of drawing supplies of wheat from other countries, and whenever that necessity occurs, has recourse to Marseilles or Gibraltar, in the first instance.

A clear illustration of what little connexion there is between the wheat trade of the Black Sea, and that of the British islands, is furnished by the returns of our Custom House.

It appears that in the ten years commencing 5th January, 1818, and ending 10th October 1826, the whole quantity imported into this country, from all the ports in the Black Sea, was 50,155 quarters of wheat, and about 5000 quarters of other corn.

APPENDIX.

No. I.—*Extracts from a Circular Letter of Messrs. Walther and Co., dated Odessa, November* 24, 1826.

GENTLEMEN,

THE question in reference to a new regulation of the Corn Laws of Great Britain coming soon under the consideration of Parliament, we beg leave to offer you some information upon the subject of our Grain market, and hope that it will merit your attention. We subjoin to that effect, not only a statement of the relative prices of Wheat at Odessa, from the year 1817 to 1826, but also the present prices of the various descriptions of Grain, in Russian as well as English currency; the Russian prices being calculated at a moderate fixed exchange, free on board, which exchange, in fact, is at the present moment rather more favourable than the one we adopted, and prices will therefore calculate to still greater advantage, should the present rate, at which actual negotiations were made, be maintained, or perhaps have still become more favourable at the time we would have to draw for orders now going out.

WHEAT. That description denominated soft Wheat, consisting in white and red, is always used for exportation; however, most of the latter. We have at this present moment still a considerable stock accumulated here, of at least some hundred thousand quarters. Our chief supplies are imported from the Polish provinces, from whence some imports begin to arrive as early as May, although the principal quantity only during the months of June and July. Of very first quality there is little or none left at present, and our stock on hand consisting chiefly of what is called a very good second shipping quality, of which prime samples may be procured. The red and white Wheat weighs generally—first quality, about 61lb. to 62lb. per old Winchester bushel—ordinary, about 56lb. There is another description of Polish Wheat, called Sendomir, but this would not stand well a long voyage. This year different parcels of the said red Wheat have been ordered and shipped for Great Britain, and some cargoes for better preservation. Our hard Wheat, of a flinty glassy grain, would

not answer for England, and goes chiefly to the ports of the Mediterranean, or the South of France, and Italy. The present price for soft Wheat being from Ro. 10½ to Ro. 13 Banco, we find, will be equal, at the exchange of Ro. 24 Banco per 1*l.* sterling, to from 13*s.* 6*d.* to 16*s.* 9*d.* per old English quarter, on board. The additional expenses on housing Wheat by the month, are very trifling, and to be estimated generally at about 15 copecks, and from that to 20 and 25 copecks a tchetvert, per month; the latter rates were paid this year, and occasioned by the over-abundance of supplies in Wheat from Poland, when every granary was filled with it, and even temporary sheds were erected for the reception of it; 15 copecks, therefore, at the exchange Ro. 24 per 1*l.*, and in proportion of 13½ tchetvert to ten quarters old Winchester measure, would bring the quarter to about 2½*d.* sterling additional charges per month. There would be a few other charges for labourage, on housing, unhousing, and turning, which, however, are so trifling, that they are of no material importance in the calculation. Carriage, lighterage, and store-rent, may sometimes vary, according to circumstances and the seasons; we however always put the whole of the charges down in our calculations as near as possible to what they will generally amount to, when they may be estimated (exclusive of housing, unhousing, turning, and store-rent) at about 16% more or less.

The Wheat exported from Odessa, in 1824, amounted only to about 296,200 quarters; 1825, it amounted to about 570,300 quarters; and of 489 Vessels arrived (of different nations) in 1825, 385 were loaded again with Grain, and principally Wheat. Of this year's exports in Grain there can be no true estimate formed as yet; although, by the great quantities brought to market, in addition to some of the old stock, it is to be expected that the Exports will surpass those of last year, and prices have been this year at the lowest ebb ever remembered, namely, on the 6th of July, when they were from Ro. 6 to Ro. 11 Banco, per tchetvert for soft Wheat.

In the year 1817, the price of soft Wheat was, on the 21st of February, as high as from Ro. 40 to Ro. 46 per tchetvert, and it ranged from the beginning of January 1817, as follows:—

Jan.	3	Ro.38 to	Ro.42
„ Feb.	10 / 7	Ro.37 „	Ro.43
„	14	Ro.39 „	Ro.44
„	21	Ro.40 „	Ro.46
„	28	Ro.37 „	Ro.45
March—		— „	—
April	4	Ro.37 „	Ro.46
„	11	Ro.36 „	Ro.45
„	18	Ro.36 „	Ro.45
„	25	Ro.36 „	Ro.44

After the 25th of April 1817, it never reached again the price of Ro. 40.

From the 2d of May, same year, the prices were from Ro. 31 to Ro. 39; in some instances as low as Ro. 20 to Ro. 28, closing the year at Ro. 26 and Ro. 35.

1818. In that year the prices varied from Jan. 9th } opening at Ro. 26 and Ro. 33, gradually declining, and closing at Ro. 16 to Ro. 20.

1819. „ „ „ 5th—opening at Ro. 17 and Ro. 19, to Ro. 9 and Ro. 13, closing at Ro. 13 and Ro. 15.

1820. „ „ „ 7th—opening at Ro. 13 and Ro. 15, with slight alterations till September 29, varying from Ro. 20 and Ro. 23, to Ro. 26, closing finally at Ro. 23 and Ro. 25.

1821. „ „ „ 5th—opening at Ro. 23 and Ro. 25, to Ro. 26 and Ro. 28, closing at Ro. 17 and Ro. 19½.

1822. „ „ „ 4th—opening at Ro. 18 and Ro. 20, varying from Ro. 20 and Ro. 21, to Ro. 13 and Ro. 16, closing at Ro. 14 and Ro. 16½.

1823. „ „ „ 3d—opening at Ro. 15 and Ro. 16, to Ro. 18½, closing at Ro. 11 and Ro. 13½.

1824. „ „ „ 2d—opening at Ro. 11 to Ro. 13½ to Ro. 15; some periods of this year varying from Ro. 9 and Ro. 13½, to Ro. 8 and Ro. 12½, closing at Ro. 9 and 12½.

1825. „ „ „ 5th—opening at Ro. 9 and Ro. 12½, varying from Ro. 15 and Ro. 16, and Ro. 9 and Ro. 13½, closing at Ro. 12 and Ro. 13.

1826. „ 5th—opening at Ro 12 and Ro. 14, declining at one time, viz. July 16, to Ro. 6 and Ro. 11, keeping most of July from that to Ro. 7 and Ro. 11, till August 3, when again Ro. 6 and Ro. 12; since when, on November 21, it stood Ro. 10½ and Ro. 13.

INDIAN CORN. The attention of many houses being called to this particular species of Grain, by the late regulations of your government, we take the liberty to inform you, that although it cannot, at this moment, be obtained here in large parcels, some may be bought, and quantities be procured from the neighbouring country, for instance from the Russian province of Bessarabia bordering on the Black Sea, where, no doubt, between 30,000 to 40,000 tchetvert might be procured, the transport by sea to Odessa being practicable in a few days, which, however, at the present time of the year, could only be done at a heavy expense and risk; as we are, however, approaching towards spring, the imports into our market will be greatly facilitated. No one will engage to deliver at present on contracts, the article having been neglected for a long while, and the cost price in Bessarabia not having been ascertained yet; we know,

however, that this year's crop has been abundant there, and very likely purchases might be made, even at Ro. 8 Bco. per tchetvert. At Ro. 9, on the spot, we find it (at the exchange of Ro. 24) answer to 12*s.* per old Engl. Quarter, on board. The quality of the Corn is described as very excellent.

BEANS (French). Of these, as well as

PEAS and

LENTILS, we might probably purchase here at present about 10,000 tchetverts of each; and we find the prices thereof correspond with the English as follows:—

Beans, at Ro. 8. and Ro. 9, at Ro. 24 Exchange, 10*s.* 8*d.* to 12*s.* sterling per Quarter.

Peas, at Ro. 8 and Ro. 9, at Ro. 24 Exchange, 10*s.* 8*d.* to 12*s.* sterling per Quarter.

Lentils, at Ro. 7 and Ro. 8, at Ro. 24 Exchange, 9*s.* 8½*d.* to 10*s.* 9*d.* sterling per Quarter.

However, any demand coming into the market, prices would no doubt take a rise.

BARLEY, of which we have ample supplies, might be bought at present at Ro. 4 to Ro. 4½, equal, at the exchange of Ro. 24, from 5*s.* 2*d.* to 6*s.* 7*d.* per old English Quarter.

OATS. There are some in the market, but we doubt whether this year's growth would warrant the shipping of it for a long voyage. Price Ro. 5 to Ro. 6, equal to Ro. 24 Exchange, from 7*s.* to 8*s.* 5*d.* per Quarter.

RYE. Some parcels at market, at Ro. 3½ to Ro. 4, or 5*s.* 1½*d.* to 5*s.* 10½*d.* per Quarter.

MILLET, at Ro. 3 to Ro. 3½*d*, or 4*s.* 7½*d.* to 5*s.* 5*d.* per Quarter.

Purchases are generally made per contracts, when the landholders or owners always receive one-half of the money in advance, for which we are permitted to draw immediately on informing our friends that such a contract is made for their account, and for the rest we value on sending Invoice and Bill of Lading, the whole being drawn at three months' date.

It will be requisite to render an operation in Grain, as well as in any other produce of our country, more sure and regular, to send out ships for such cargoes as will be ordered, so that the frequent difficulties and disappointments arising from want of shipping may be avoided, which has been again felt in different instances this year, and for which reason higher freights were offered and paid here, than those for which charters were made in England, viz., 4*l.* and 4*l.* 4*s.* with 5 and 10 ℔ Primage per ton of Tallow, and 16*s.* to 18*s.* per Quarter of Wheat, were offered and paid in Odessa; while the freights agreed upon in England were mostly from 3*l.* in full, to 3*l.* 6*s.* to 3*l.* 10*s.* and 3*l.* 12*s.* partly in full, partly with 5 and 10 ℔ Primage for Tallow, and other goods in proportion—Wheat 13*s.* per Quarter and 10 ℔ Primage,

TALLOW. Permit us to add a few words upon one of our leading articles, viz., Tallow. Some hasty purchasers paid, about the middle of November, Ro. 8 : 80 Copecks and Ro. 8 : 90 Copecks, equal, at Ro. 24 Exchange, to 26*l.* 9*s.* 6*d.*, and 26*l.* 15*s.* 2*d.* per ton, on board. We were then of opinion that we should see it lower again in a short time; and since those buyers seem now to have done with it, holders have begun to lower their tone; our expectations have in some measure been realized, and purchases have been made these days at lower prices, viz., at Ro. 8.: 65 Copecks, and Ro. 8 : 70 Copecks, and none could be made now under Ro. 8 : 75 Copecks, being, at Ro. 24 Exchange, 26*l.* 6. 10*d.* per Ton, on board. It is impossible to say how the market may be regulated by and by; but if prices should experience a further rise, we hope it will not be much beyond the present quotation.

It will give us much pleasure in being honoured with your commands, and we assure you that every attention and care shall be paid to your interest, while we remain, most respectfully,

Your most obedient Servants,

WALTHER & Co.

London, December 28, 1826.

EXCHANGE ON LONDON—done on the 21st of November at Ro. 24 : 50 Co.

No. II.—*Circular Letter from Odessa.*

Odessa, le 19 Octobre, 1821.

Au moment où le commerce en général, sortant de l'état de découragement où l'avaient plongé les catastrophes qui éclatèrent en printems sur les principales places de l'Europe, présente une perspective plus attrayante à la spéculation, et un emploi plus sûr de capitaux dans l'achat de nos produits, descendus, en partie par la crise passée, à des prix presqu' au-dessous des frais de culture et manutention, permettez, Messrs., que nous venions vous soumettre quelques détails sur la position de notre marché, et vous présenter l'offre empressée de notre ministère.

BLE. Cette denrée de première nécessité, qui forme la principale branche de notre commerce, nous est arrivée le printems dernier avec une abondance, telle qu'en peu de tems notre dépôt en fut porté à environ 800,000 tchetwerts, consistant principalement en qualités inférieures et moyennes. Cette affluence extraordinaire de comestibles fut provoquée par les espérances dont on s'était bercé l'automne passé d'une admission générale de céréales en Espagne: illusion dont les propriétaires dans l'intérieur ne pouvaient se défaire même à l'ouverture de la campagne, lorsque graduellement cette perspective se ternit, et enfin s'évanouit; d'ailleurs, la réprise pendant la précédente arrière saison avait engagé beaucoup de spéculateurs à faire de fortes emplettes aux contrats de Kiow en Janvier; et cette masse devait naturellement refluer sur notre place quelque fût l'allure des marchés dans l'étranger. Telle était l'affluence de transports vers la fin du mois de Mai et jusqu'au Juillet, que la rareté et cherté exorbitante des magasins contraignèrent plusieurs détenteurs de lâcher leur merchandise, en qualités inférieures, aux taux les plus vils, et cette espêce fut à diverses reprises cédée à une bagatelle au-dessus du prix de roulage. Cette dépréciation inouie, qui, dans toute autre circonstance, aurait fait replier les spéculateurs sur cette denrée, ne provoqua cependant que des acquisitions modérées, la pénurie de bâtimens et le manque d'un débouché engageant à l'étranger ayant paralysé les esprits. Toutefois le beau blé, dont la minimité d'arrivages contrastoit singulièrement avec la surabondance des qualités inférieures, fut constamment demandé et ne recula, pendant le calme précité, jamais au-dessous de R. 11 le tchetwert.

Les transports de l'intérieur s'étant enfin arrêtés et l'exiguité de la récolte en Italie, en Angleterre, en Portugal, en Espagne, en Autriche, en Bavière, en Syrie, dans l'Asie Mineure, etc., etc., ayant été incontestablement vérifiée, nos prix s'affermirent insensiblement, et pendant les derniers mois, il y a eu, par intervalles, des symptômes de légère reprise. Les maisons grecques se sont livrées à quelques achats de blé de qualité inférieure, propre au commerce de Constantinople et de l'Archipel, à

8 R., et les établissemens francs ont recherché avec quelque ardeur les qualités supérieures, qui se sont payées jusqu'à 13 Ro.

Notre dépôt actuel de la récolte 1825
s'élève à environ . . . 650,000 tchetwerts blé tendre, et
50,000 tchetwerts blé dur,

ensemble 700,000 tchetwerts

que nous croyons pouvoir classer dans la proportion suivante :

Tchetwerts 25,000 tendre, première qualité, dont le prix actuel est de 12 à 13 Ro.
„ 200,000 „ qualité marchande, 11 à 11½
„ 425,000 „ qualité inférieure, 7 à 8½
„ 50,000 dur, dont il n'existe que des qualités marchandes sur place, de 10 à 12.

Malgré les sauterelles qui ont ravagé partiellement quelques districts, et la vicissitude de la saison qui a été défavorable en quelques endroits aux céréales, la récolte qui vient de s'opérer a été, en général, assez abondante, et les nouveaux blés tendres présentent dans l'ensemble de meilleures parties qu'à la moisson précédente.

Les blés durs qui se cultivent principalement dans les districts maritimes, depuis le Dniester jusqu'à delà du Don, sont supérieurs à ceux des années antérieures, sans cependant être de toute perfection.

Les nouveaux blés des provinces limitrophes commencent déjà à nous parvenir en petites parties, mais vû nos bas prix, nous n'en attendons, au maximum, qu'environ 100,000 tchetwerts entre tendre et dur. Les seconds arrivages n'auront lieu qu'à la fin du mois de Mai de l'année prochaine.

Les pertes que les propriétaires ont éprouvées cette année, et l'improbabilité d'une reprise saillante nous laissent entrevoir un décroissement notable de renforts à la prochaine campagne. Vû cette circonstance, qui entraînera probablement une hausse au printems lors de l'arrivée usuelle et simultanée d'un grand nombre de navires; attendu aussi la modicité de nos prix actuels, lesquels par suite de la saison avancée, qui empêchera une exportation au delà d'environ 150 à 200,000 tchet. cette année, ne sauraient de suite être susceptibles d'une augmentation importante; considérant également les besoins réels de l'Italie, les permis partiels d'entrée concédés par le gouvernement de la péninsule et de la Grande Bretagne; la demande qui se manifeste pour Constantinople et plusieurs autres points de l'empire ottoman, il est à supposer qu'un achat par spéculation, soit pour effectuer la revente ou pour vous expédier la marchandise au printems, offrirait un résultat satisfaisant, et nous osons donc réclamer vos ordres à cet effet.

AVOINE. Cet article nous provient également de la Pologne, mais la récolte ayant été médiocre, et la vente étant bornée ici à la consommation locale, nos existences sont plutôt minces. On pourrait facilement conclure des traités, à livrer au printems, au prix de 5½ à 6 Ro.

ORGE. La qualité que l'on nous apporte de cette denrée est ordinairement belle. Dans ce moment, on n'en rencontre que de petites parties sur place, qui se débitent à des taux modiques, soit de 3½ à 33½ R. mais nous ne serions pas embarrassés d'en procurer des quantités considérables vers le principe de l'année prochaine, aux prix indiqués.

POIS VERTS. La Pologne est a même de nous fournir abondamment ce légume, et nous pourrions promptement en tirer de ce pays des parties importantes en petit et grand grain vert, qui se vendent presqu'indistinctement au prix de 8 R. les qualités inférieures, et de R. 10 à 11 les qualités parfaites. Quoique l'exportation en soit restreinte actuellement, il s'en trouve néanmoins quelque dépôt sur place aux cotes.

HARICOTS et LENTILLES. Ils ne nous manqueraient pas s'il y eut de la requête. Nos haricots sont d'une grosseur moyenne et de bonne qualité.

POTASSE. L'espèce qui s'exploite ici est la même que celle qui s'exporte le Dantzic. Elle a de 40 à 50 degrès, et s'achète ordinairement à Kiow en Janvier par contrat, à livrer à la fin de l'été, à des conditions chanceuses pour l'acquéreur, qui doit souvent avancer de suite la moitié du prix stipulé à charge de solder le reste à la livraison, laquelle, en cas de hausse, rencontre quelquefois des difficultés lorsque les juifs vendeurs n'offrent pas des garanties suffisantes. Vû cet inconvénient et la circonstance que ces marc hésse font sans stipulation de degrès, il est préférable de faire des acquisitions de la marchandise disponible qui commence à nous arriver en Septembre. Cet alkali, après avoir donné les dernières années de forts bénéfices en France, est, dans ce moment, délaissé de R. 5 à 5½ le poud.

LAINE. Cet article paroît devenir par la suite l'un des plus intéressants et importants de notre commerce. Il y a environ 20 ans que les riches pâturages de la Russie méridionale ne nourrissoient que des brebis Valosque et Zigai, mais à peu près à cette époque plusieurs grands établissemens de mérinos furent créés dans les gouvernemens de Tauride, de Kerson et d'Ekatérinoslaw, et les avantages qui en resultèrent furent tels que de semblables entreprises se succédèrent rapidement. Les sources où puisèrent les fondateurs furent les troupeaux de race électorale de Saxe, d'Espagne, de France, et de Suisse.

La reproduction des races pures de mérinos et l'amélioration par le métissage des laines communes du pays, furent menées de front; cinq générations suffirent pour amener ces dernières à une finesse des premières qualités. Les propriétés distinctives de nos laines perfectionnées sont la douceur, l'élasticité et une grande blancheur au lavage; elles se filent avec une grande perfection et produisent dès lors des étoffes de qualité supérieure; quant à la finesse, beaucoup d'établissemens ont atteint la majeure partie de ce qui existe à l'étranger, et les toisons sont, en général, épaisses et tassées. On peut porter à 450,000 le nombre de mérinos et métis qui existent dans les gouvernemens de Tauride, d'Eka-

térinoslaw, de Kerson et dans le Boudiak. La quantité de laine produite est environ 60,000 pouds, qui jusqu'ici ont été principalement distribués parmi les fabricans du pays et d'Angleterre; les Russes achètent surtout les premières générations, tandis que les Anglais s'emparent des dernières et de mérinos. Tout annonce un accroissement rapide dans cette branche d'industrie nationale, d'autant plus que beaucoup de nos propriétaires, détournés de la culture de blés par suite de leur avilissement, cherchent à compenser cette diminution de leurs revenus par l'établissement de bergeries. La meilleure époque pour effectuer des achats est à la tonte au mois de Mai. En général, on stipule le prix pour chaque qualité séparément; mais on établit aussi quelquefois un taux moyen pour toutes les espèces d'une bergerie, comme il s'est pratiqué à quelques occasions cette année.

Voici les prix de deux dernières années:

	1825.	1826.
Mérinos en suint . . .	R. 62	R. 46 à 50 le poud.
Métis „ 5me génération		
id. „ 4me „	„ 46	„ 37
id. „ 3me „	„ 38	„ 31 à 33
id. „ 2de „	„ 26	„ 24
id. „ 1ère „	„ 18 à 20	„ 16

Les gouvernemens de Kerson, de Bessarabie et les provinces limitrophes de Valachie et de Moldavie fournissent de grandes quantités de laines de brebis Valosque qui est une qualité ordinaire propre à des matelats et à la fabrique de lisières. On passe ordinairement les contrats en Décembre avec les propriétaires et les Boyards moyennant des arrhes d'environ la moitié du premier coût. Le prix ne se fixe définitivement qu' à la tonte en Mai, sauf dans le gouvernement de Kerson où les achats se font de marchandise disponible en Mai et Juin. On paye actuellement cette espèce ici de 4½ à 4¾R. le poud en suint, et R.9 à 9½ lavée. La laine Zigai produite en Bessarabie et les provinces adjacentes de la Turquie sont supérieures à celles que nous venons de décrire, et peuvent être comparées à la première qualité d'Adrinople bien connue dans les ports de la Méditerranée; l'Autriche en enlève la majeure partie, voie de terre. Les achats se font de la manière expliquée ci-haut, et le prix cette année a été d'environ R. 7½ le poud à Kischenew en Bessarabie. Le taux actuel ici est de 10R. le poud en suint, et 14 à 15 R. la marchandise lavée. Au reste, il y a presque constamment un dépôt ici de toutes les qualités désignées, lavées, et les expéditions s'en font en balles carrées et pressées. Notre lavage ne le cède en rien à celui de la France. Le droit de sortie est indistinctement de R. 1 82 assig. le poud.

SUIF. L'exportation de cette graisse est considérable, et la qualité est reconnue être supérieure à celle de St. Petersbourg, par sa belle couleur, jaune de paille, sûr indice de la pureté de la fonte, à laquelle, en effet, on voue les soins les plus scrupuleux dans ces parages. Vû le voisinage des cantons d'où nous tirons cet article, le nouveau suif est disponible et

s'embarque ici en automne, tandis qu'à St. Petersbourg, les expéditions ne s'effectuent que l'année suivante à cause de la grande distance des districts qui fournissent cette graisse à la métropole. Attendu cette circonstance et les prix modiques qui se pratiquent ordinairement ici, il nous paraît de votre intérêt de donner la preférence à ce port pour en retirer vos besoins à venir. Les marchés, qui se passent généralement en Juillet et Août, pour livrer fin Septembre et tout Octobre, se sont conclus cette campagne à 1½ R. le poud, moyennant des arrhes de la moitié du prix. Dès lors la requête pour l'Angleterre étant devenue active, l'article s'est rapidement élevé à 8½ R. avec apparence d'augmentation ultérieure, d'autant plus qu'à cause du calme absolu qui régnoit également sur cet article en printems les fonderies y avoient contractées pour moins de bestiaux qu'à l'ordinaire et ne fourniront que 300,000 pouds de suif. Au change de 24 R. pour 1 Liv. st., et calculant le ton à 63 pouds, le suif à 8¼ R. premier coût, reviendroit bord à L. st. 25*s.* 10*d.* net le ton, y incluse la commission. On embarque généralement l'article en barriques d'environ 30 pouds. Le suif en outres, quoiqu'il soit égal en qualité à celui en futailles, s'obtient de ¼ à ½ R le poud, meilleur marché, tandis qu'à Londres, il vaut de 2 à 2½ sh. le quintal de plus. Chaque peau contient à peu près 32 à 35 pouds.

Ordinairement le frêt pour l'Angleterre roule entre 75 et 80 sh. le ton avec 10 pr. ⅛ de primage, mais par suite de la rareté de bâtimens, l'on exige actuellement 80 à 84 sh. par ton.

PEAUX SECHES. Il y a deux sortes de peaux de bœuf et de vaches; l'une qui émane des bestiaux que l'on abat pour les fonderies de suif, et l'autre des boucheries. La première est la plus parfaite et la plus pesante, puisque, pour l'usage indiqué, on se sert de bêtes de choix et bien nourries; la seconde espèce est tant soit peu inférieure. Les peaux des fonderies ne sont qu'à moitié sèches à la livraison en Septembre et Octobre, et se traitent par pièce, ½ vaches et ½ bœufs. L'acheteur a le droit d'écarter les peaux défectueuses, mais pas les légères. On les empile jusqu' à la belle saison de l'année suivante, époque où on les sèche et expédie. Les vaches pèsant alors communément 22 livres et les bœufs 35 à 40 lb. Les marchés à livrer, que l'on passe ordinairement en Août, ont été stipulés cette année à 5 R. les premières et 6 R. les dernières. Lorsqu'elles sont préparées pour l'exportation, elles reviennent à environ 12 R. le poud, y compris le déchet, la main-d'œuvre, le magasinage et l'intérêt d'argent pendant l'hiver. Le pays fournira moins cette campagne que les précédentes, par suite du peu d'activité des fonderies, produite par la cause citée à l'article précédent. Depuis quelque tems on a commencé à établir des peaux à l'instar de celles de Buenos-Ayres, mais, en général, on y renonce, à cause que la différence du prix sur les marchés de consommation n'y offre pas une juste compensation.

Les peaux de boucheries se vendent au poud, ½ bœufs et ½ vaches, parfaitement sèches et conditionnées et sans écarts. On se les procure à chaque époque de l'année, et le prix actuel en est de 12½ à 13 R. L'ex-

portation de cet article en général eyant été bornée cette année en raison du calme qui regnoit partout, notre dépôt présente actuellement plusieurs parties de vieille et nouvelle marchandise de toute satisfaction. Les peaux salées se sont vendues à 6 R. et vaches, et 8 R. les bœufs, la pièce.

YOUFTS ou VACHETTES. Cet article se trouve rarement disponible ici en qualité de satisfaction. On le transporte directement du pays de fabrique aux foires et notamment à celle de Makarieff qui a lieu en Juillet, d'où les qualités inférieures qui restent invendues sont dirigées sur notre place. On les cote en ce moment de 35 à 36 R.

FER. Les mines du comte Demidoff, Zilenzow, Rastarguies, etc., en Sibérie, nous fournissent ce métal en grande quantité par la mer d'Azow, navigable depuis le mois de Mai jusqu'en Octobre, saison où par conséquent notre dépôt se garnit abondamment.

En voici nos cotes:

Vieux Soble CCAND:	en barres	. .	6½ R. le poud.
id.	„	carrées	7 à 8 „ selon les dimensions.
id.	„	plaques	. . . 7 à 10 „ „
Fer Zilenzow Rastarguies,	en barres	5 à 5½ R.	Les autres sortes en proportion.

CUIVRE. Les minières du comte Demidoff nous pourvoient aussi de ce métal durant l'époque précitée. Les plaques pour doublure de bâtimens, de 2 archines de longueur sur 14 verschocks de largeur, dont 21 pésent 6 pouds et 5 lb. se payent de 39 à 40 R. le poud. Une archine contient, 6 verschock. L'archine est de 26 pouces 5½ lignes, pied de France. Le cuivre, en bloc, en général, se paye 38 à 40 R.

CAVIAR. Nous en recevons fin Octobre, de Taganrog, nos approvisionnemens pour la re-exportation. Cette salaison a valu 16 R. cette année à Astrakan, soit environ 19½ R. rendue au port précité où elle arrive en Août et Septembre. Elle s'y est vendue cette campagne de 21½ à 13½ R., en sorte que nous ne pouvons pas nous flatter de l'arrêter ici à moins du dernier prix.

CIRE JAUNE. La saison d'abondance de cet article est à la fin de l'été, mais on en trouve des parties disponibles à chaque époque de l'année. Les contrats, à livrer depuis Octobre jusqu'en Décembre, se font en Août, moyennant des arrhes d'environ la moitié du premier coût. On ne fait pas de distinction de prix entre la qualité rouge ou jaune. Les dernières ventes ont eu lieu à 54 R.

ARTICLES DIVERS. Notre exportation se compose de beaucoup d'autres objets, tels que la colle de poisson, les cordages, le goudron, la viande salée à l'anglaise, le beurre salé, les toiles à voile, le fil d'or de Moscou, les bois de construction et de charpente, les douelles, etc. etc. Si vous désiriez quelques renseignemens particuliers à l'égard de l'un d'eux, nous nous empresserons de vous satisfaire. Nous nous rapportons au resté à notre prix courant ci-annexé.

AFFRETEMENS. Notre port, d'ordinaire très frequenté, a éprouvé depuis le printems dernier une pénurie de bâtimens qui a porté les frêts à des taux très avantageux aux armateurs. Ce denuement a été causé par les vents du nord qui ont régné cette année avec une constance sans exemple et ont empêché les navires réunis en été à Constantinople, et originairement destinés pour la Mer Noire, de déboucher. Beaucoup de capitaines, impatiens du retard, ont accepté à Constantinople de l'emploi pour Alexandrie pour compte du gouvernement turc, de façon qu'actuellement où il souffle du midi, nous nous attendons à moins d'arrivages, que sous d'autres circonstances nous aurions pu espérer. Voici les prix des derniers nolissemens. Gênes par pavillon étranger Lfb. 6 l'émine.—Pavillon national 7½ à 8 Livourne. Leff. 4 le sac. Marseille. Frs. 7 la charge.—Malte, par pavillon anglais, Scudi le salme.—Pavillon autrichien 5 à Constantinople, paras 90.—Smyrne, 115 à 120. Zante, 120 le kilot.

Nos détenteurs de blé étant désireux d'expédier leurs existences, les nolis ne nous paroissent pas susceptibles de diminution. Il y aura également beaucoup d'emplois au printems, et vous pouvez donc hardiment compter sur des frêts engageants. Les bâtimens que vous nous adresserez, seront de suite re-expédiés par nous. En soyez persuadés.

Jusqu'ici il est arrivé dans notre port 335 bâtimens, dont 322 sont repartis, principalement chargés de blé pour diverses destinations.

IMPORTATION.

Le peu de luxe et les besoins bornés de la classe la plus nombreuse de notre ville et de l'intérieur, rendent cette seconde branche de notre commerce moins active et moins importante que l'exportation; d'ailleurs nous ne fournissons qu'à l'approvisionnement local et à celui de quelques districts de la Pologne, des gouvernemens d'Ekatérinoslaw, de Kerson et de Tauride; rayon trop restreint pour espérer ici un débouché bien étendu de produits exotiques. Toutefois les ventes qui s'en opèrent sont communément profitables aux importateurs et nous réclamons par suite votre attention au développement suivant: CAFE. L'apparence et non le goût détermine ici la valeur de cette fève, aussi les espèces foncées, qualité moyenne, sont les plus convenables pour le commerce local. Le café pâle, qualité ordinaire, ne trouve de débouché qu'en Crimée, pays qui reçoit principalement ses approvisionnemens d'ici. La vente annuelle de toutes les espèces peut être calculée de 5 à 6000 pouds. Le dépôt actuel est de 7000 pouds, consistant uniquement en marchandise inférieure; aussi un renfort de qualité supérieure se placerait-il immédiatement. Nos cours actuels sont: qualité ordinaire 27 à 29 R. le poud, ditto foncée et verte, 35 à 38.

SUCRE. L'entrée du sucre rafiné étant prohibée en Russie, nous sommes réduits pour cette douceur à la consommation du Port franc, laquelle se borne de 3 à 4000 pouds en pains rafinés. La défaite du sucre pilé et terré, comme le Havane et le Brésil blanc, peut être évaluée de 6 à 7000 pouds. Dans le moment, le marché est balayé de toutes les

qualités, tant brutes que rafinées, et nous vous invitons donc de nous en faire un petit envoi pour votre compte.

Les sucres jaunes et obscures ne rencontrent aucun débit ici. Voici les prix du jour:

Rafiné en pains première qualité, ou double: 36 à 37 R.—seconde qualité, ou simple: 30 à 32.—Pilé: 22 à 27. Havane blanc, 25 à 26.—Brésil: 20 à 21.

EPICES. Les épices sont d'un écoulement lent et borné, sauf le poivre dont 5000 pouds trouvent un emploi facile ici. Livourne nous a jusqu'ici principalement fourni ce grain en qualité de Goa et de Malabar.

BOIS de TEINTURE. Au fur et à mesure de l'augmentation des fabriques, les objets de teinture rencontreront une demande plus étendue. Actuellement, une importation de 6 à 7000 pouds de Campêche, et 1500 pouds Bois jaune, nous suffit. Nos existences de Bois de Campêche sont évaluées à 20,000 pouds, dont cependant la majeure partie est hors de vente; les détenteurs étant limités à des prix excessifs par leurs commettants. Les dernières acquisitions se sont faites à 3½ R. le poud. Nous sommes dénués de Bois jaune. La marchandise disponible vaudrait 5 à 5½ R.; mais on a conclu des traités à livrer à 4½ R.

INDIGO. Nous dépendons pour le placement de cette pâte des fabricans de Moscou; or comme il existe constamment à St. Pétersbourg un vaste assortiment, ils y ont recours plutôt qu'à notre place, et l'article offre par conséquent peu de ressource ici. Au reste, il nous faut des qualités moyennes et légères. La marchandise inférieure et pesante n'a aucun emploi.

COCHENILLE. Il s'en réalise environ 50 à 60 pouds. On préfère la noire pour Moscou, et le prix en est de 725 à 800 R. le poud. La qualité argentée, qui vaut 650 à 700 R. s'expédie en Pologne.

PRODUITS de SICILE, etc. Les produits de Sicile sont d'un cours facile, et présentent ordinairement du bénéfice. Les oranges et citrons jouissent surtout d'une forte consommation pendant presque toute l'année. La composition ordinaire des cargaisons, est de ⅔ oranges en caisses de 400 à 450 pièces, et ⅓ citrons en caisses d'environ 250 pièces. On peut facilement colloquer 10 à 15 cargaisons, dont les premières, au printems, réalisent ordinairement de 110 à 140 R. le mille, mais au fur et à mesure des arrivages, les prix baissent quelquefois jusqu'à 50 à 80 R. En automne, lorsque les importations du printems sont épuisées, quelques chargemens isolés, surtout d'oranges, feraient fortune. On peut ajouter à chaque envoi 40 à 50 caisses amères: qui se vendent indistinctement au prix des espèces précitées.

JUS de CITRON. On écoule, sans difficulté, 200 pipes de cet acide par an. Son cours usuel est de 5 à 6 R. le poud, prix qui doit offrir quelque marge, surtout en faisant les expéditions par bâtimens venant sur lest qui se contentent d'un nolis extrêmement modique.

ORANGETTES. Notre place en est dépourvue, et l'on en accorderait volontiers 6 à 7 R. le poud. La consommation en est de 1000 à 1500 pouds par an.

ECORCES d'ORANGES en quarts, dont le dépôt est également dégarni, rencontreraient des amateurs empressés, de 10 à 11 R. pour la nouvelle marchandise. La vieille a dernièrement été cédée à 7 R. La vente annuelle est de 1000 pouds. Nous sommes aussi dépourvus d'écorces de citron et de Bergamotte, pour lesquelles on donnerait 10 à 12 R. le poud.

AMANDES. Les douces, sans écorces, jouissent d'un bon débit qu'on peut calculer à 6000 pouds par an. Il ne nous en est parvenu que 4000 pouds cette campagne; aussi vient-on d'en placer une partie majeure, en voyage de Livourne, à livrer à 25 R. prix que l'on peut considérer comme permanent.

SOUFRE BRUT. Vers mi-été, où le prix de transport pour l'intérieur par les chariots qui nous amènent le blé est le plus modique, la vente de cette substance est assez coulante. On peut l'évaluer de 5 à 6000 pouds par an. Il n'en existe pas sur le marché dans le moment. On veut une bonne et même la meilleure qualité de Girgenti, dont le cours est de 3 à 3½ R. le poud. Dernièrement il nous est parvenû une nouvelle espèce de Palerme, qui a été très goûtée.

FRUITS SECS. On en débite de 12 à 15 cargaisons par an, consistant en raisins de Cismé, qui fluctuent entre 6 à 9 R. Carabourna de 10 à 14, Ourla de 11 à 14, raisins noirs de 3½ à 5, Figues de 5 à 12. Le résultat de ces entreprises dépend de la qualité de la marchandise et du nombre d'arrivages simultané.

HUILE COMMUNE à brûler. La jaune, qui ne dépose pas de sédiment en la brûlant, est l'espèce préférée, et l'on en écoule facilement de 130,000 à 150,000 pouds par an. On n'exige pas la propriété tournante, encore inconnue dans ces contrées, et l'on ne fait pas la moindre attention au goût. On accorde aujourd'hui 12½ à 13 R. le poud pour l'huile de Sicile, dont notre approvisionnement est estimé à 2500 pouds, et 12 R. pour celle de l'Archipel, dont 150,000 pouds se trouvent sur place. Il est à observer que l'huile de Sicile qui nous a été apportée en dernier lieu, étant verdâtre, celle des Iles trouve plus d'amateurs cette campagne à cause de sa belle couleur jaunâtre. Ceci n'est cependant pas constamment le cas, et selon que la récolte de l'une ou de l'autre a produit de la marchandise adaptée à notre consommation, on lui accorde la préférence.

L'HUILE à BOUCHE est d'une défaite restreinte. La surfine de Provence, de la rivière de Gênes et de Lucques en petites barriques de 4 à 5 pouds se font de R. 20 a 25 le poud selon la quantité. L'huile appelée mangeable, de 15 à 18 R.

VIN. Le débit de vins en bouteilles, dont le marché est surchargé, étant très lent lorsque les blés sont à bas prix, comme c'est le cas actu-

ellement, nous n'osons pas encourager des expéditions de cette liquide en qualité fine, sauf le Champagne et le Bourgogne mousseux qui sont d'un écoulement rapide, le premier à R. 7, et le dernier à 8. Le droit d'entrée en est de R. 2. 52 k. par bouteille. Les petits vins, et ceux qui s'embarquent ordinairement à Marseille, tel que le Cassis, se vendent couramment de 115 R. l'okshofft de 9 à 30 veltes.

ECAILLE de TORTUE. C'est un excellent article pour Moscou. On y a l'usage d'assortir les 13 pièces qui forment l'écaille totale de chaque tortue et de nous en renvoyer les parties inférieures, qui s'expédient ensuite pour Constantinople et autres endroits.

ETAIN d'Angleterre en barres. Ce métal, dont 150 barils suffisent à nos besoins, offre, ordinairement, de la marge, et roule entre 39 et 45 R. le poud. Nous en sommes tout-à-fait dépourvus, en sorte qu'un envoi rencontreroit bien.

FER BLANC d'Angleterre. Le dépôt en est de 400 caisses qui valent 75 R. les 225 feuilles en assortiment de ½ IC et ½ IX. La consommation en est calculée de 5 à 600 caisses.

ARTICLES DIVERS. Le minium, la litharge, le vitriol vert, et les charbons fossiles sont des objets courants.

CHANGES. L'état de notre commerce d'exportation et le nombre de bâtimens en port, forment réunis le baromètre de nos changes. Ils se sont bien soutenus depuis quelque tems, vû que l'on s'était remboursé en grande partie pendant l'hiver passé et au printems des grands achats effectués le dernier automne pour l'étranger, ce qui a empêché une surabondance de papier à l'époque de l'expédition des navires. Les arbitrages par Vienne, Paris, ou St. Pétersbourg sont ordinairement les plus avantageux pour les commettans dans les ports de la Méditerranée; ces divises sont au surplus les plus recherchées ici. Le Livourne est souvent délaissé.

Nos relations très étendues et très suivies avec les propriétaires de l'intérieur, nous mettent à même de pouvoir vous procurer avec le plus d'avantage possible, nos produits indigènes, comme de vous trouver un débouché fructueux de ceux exotiques, qu'il vous plaira nous adresser. Nous nous berçons de l'espoir que vous voudrez bientôt mettre notre zèle à l'épreuve, dans une de ces branches, et dans cette agréable attente, nous vous présentons l'assurance de notre dévouement le plus sincère et de notre parfaite considération.

DELLA VOS FILS et C.

No. III.

Furnished by the Consul at Odessa.

AN ACCOUNT of the average Prices of Wheat at Odessa, together with the Shipping Charges, reduced into British Measure and Currency, according to the average Rates of Exchange, the whole taken Quarterly for the Years 1814 to 1824, inclusive: Likewise of the Rates of Freight, and of the Quantities annually exported.

Quarter ending in	Price per Chetvert in Russian Money.	Charges for Shipping per Chetvert in Russian Money.	Rate of Exchange per pound Sterling.	Price on Board per quarter in British Money.	Freight per quarter in British Money.	Quantities exported in Quarters.	OBSERVATIONS.
31 March, 1814.	Rs. 20 75	Rs. 2 75	Rs. 18 60	33s. 8d.	No Shipments for England, but for the Mediterranean Ports from 7 to 10 shillings per Quarter.	187 685	This is the Wheat generally known under the name of Polish or Soft Wheat. The districts from which Odessa derives its ordinary supplies, are from 150 to 250 miles distant from that city.
30 June, „	„ 21 50	„ 2 65	„ 18 90	34 1			
30 September, „	„ 17 50	„ 2 50	„ 19 55	27 3			
31 December, „	„ 18	„ 2 50	„ 20 50	26 8			
31 March, 1815.	„ 24 30	„ 3 55	„ 20 30	36 6			
30 June, „	„ 21	„ 2 75	„ 20 10	31 6		372 309	The excessive prices of 1816 and 1817 occasioned Wheat to be brought over land from remoter districts in Poland and the Ukraine, more than 400 miles up the country.
30 September, „	„ 24 80	„ 2 95	„ 20 60	35 11			
31 December, „	„ 23 50	„ 3 75	„ 21 10	34 3			
31 March, 1816.	„ 32	„ 5 50	„ 22 10	45 3			
30 June, „	„ 35 35	„ 3 60	„ 22 60	46	No Shipments for England, but for the Mediterranean Ports from 10 to 16 shillings per Quarter.	801 591	The great exportation in 1816 and 1817 was excited by a general demand from the Mediterranean.
30 September, „	„ 35 80	„ 3 65	„ 23 10	45 7			
31 December, „	„ 36 90	„ 3 65	„ 23	47			
31 March, 1817.	„ 44 75	„ 4 40	„ 22 10	58 6			
30 June, „	„ 34 60	„ 3 60	„ 22	46 4		870 893	The Exportation of 1818 was chiefly speculative in great part for Odessa account, and attended by ruinous results.
30 September, „	„ 30	„ 3 60	„ 21 55	41 2			
31 December, „	„ 33 60	„ 3 75	„ 20 80	47 11			

31 March,	1818.	„ 29	80	„ 3	80	„ 20	55	43	7	For England at 12s. per Quarter.	538	513	Including last quarter.
30 June,	„	„ 22	70	„ 2	85	„ 20	85	32	8				
30 September,	„	„ 23	80	„ 2	90	„ 20	40	34	11				
31 December,	„	„ 21	30	„ 2	80	„ 19	20	33	6	Shipments for England at 12 to 13s. per Quarter.	627	926	
31 March,	1819.	„ 17	20	„ 2	60	„ 19	80	26	8				
30 June,	„	„ 17	30	„ 2	60	„ 20	85	25	5				
30 September,	„	„ 16	30	„ 2	55	„ 21	85	23	1				
31 December,	„	„ 14		„ 2	45	„ 23	70	18	6				
31 March,	1820.	„ 15	30	„ 2	50	„ 24	30	19	7		534	199	
30 June,	„	„ 17		„ 2	60	„ 24	20	21	7				
30 September,	„	„ 19	30	„ 2	65	„ 24	40	24					
31 December,	„	„ 23	30	„ 2	75	„ 23	40	29	8				
31 March,	1821.	„ 24	50	„ 2	80	„ 23	70	30	9				
30 June,	„	„ 23	50	„ 2	75	„ 24	15	29		For England freight at 4l. per Ton, equal to 12 and 13s. per Qr,	435	305	
30 September,	„	„ 20	15	„ 2	65	„ 25	25	24	3				
31 December,	„	„ 19	80	„ 2	65	„ 24	90	24	2				
31 March,	1822.	„ 17	25	„ 2	60	„ 24	80	20	8		342	752	
30 June,	„	„ 17	75	„ 2	60	„ 25		21	8				
30 September,	„	„ 17	40	„ 2	60	„ 24	65	21	7	For the Mediterranean Ports from 7 to 8s. per Qr.			
31 December,	„	„ 15	25	„ 2	50	„ 23	90	19	10				
31 March,	1823.	„ 15	20	„ 2	50	„ 24		19	8		443	035	
30 June,	„	„ 15		„ 2	50	„ 24	50	19	2				
30 September,	„	„ 12	25	„ 2	35	„ 24	75	15	7				
31 December,	„	„ 11	70	„ 2	30	„ 24	95	15					
31 March,	1824.	„ 12	20	„ 2	35	„ 25	40	15	3		427	767	
30 June,	„	„ 11	70	„ 2	30	„ 25	10	14	10				
30 September,	„	„ 11	90	„ 2	35	„ 25	15	14	11				
31 December,	„	„ 11	25	„ 2	30	„ 24	55	14	8				

The Wheat Trade for the last six years has been chiefly carried on by, and for account of the Genoese, Greek, Adriatic, and Ionian *Shipholders*.

Considerable Depôts of Wheat have been kept at Genoa and Marseilles, from whence it is smuggled into Spain.

The prices of 1823 and 1824 are thought to be considerably below the real cost of Wheat to the grower, and much land is now consequently throwing out of cultivation and used for pasture; and the attention of landholders and farmers directed to the breeding of sheep, the climate of New Russia being favourable for the production of fine wool.

No. IV.—CALCUL APPROXIMATIF des Dépenses et Revenus d'un Propriétaire d'une terre avec 500 âmes males, représentant un *Capital de* 90,000 *Roubles en argent blanc*, suivant le prix moyen actuel de Rs. 180 par âme.

Le propriétaire d'un bien en fond de terre dans les provinces méridionales de la Pologne appartenant à la Russie doit retirer un revenu net de 5 pour cent, par an au moins sur son capital, comme l'intérêt que la Couronne donne est du même taux. L'intérêt légal permis par la loi est de 6 pour cent, et l'intérêt usité dans les transactions parmi les propriétaires est de 7 à 8 pour cent. Donc sur un capital de 90,000 Rs. le propriétaire doit avoir net 5 pour cent, ce qui fait Rs. 4500.

Les Dépenses annuelles sur une semblable terre, se montent à ce qui suit:

	Ro.	Ro.
L'impôt du gouvernement est annuellement de Rs. 7 en Ass. de Banque par âme mâle, ce qui fait pour 500 âmes Rs. 3500 en Ass. et au cours de change actuel à 26½ pour cent, en argent blanc . .	927 50	
Cet impôt se paye en deux termes, par semestre anticipativement; donc sur une moitié, il y a à ajouter l'intérêt pour une année entière 5 p. cent. . .	23 18	
Sur l'autre moitié l'intérêt pour une demie année,	11 59	
	34 77	
		962 27
Les Dépenses indispensables qui se renouvellent tous les deux ans, sont:		
Pour 12 charrues pour labourer à Rs. 3, Rs. 36; 24 charrues à biner . . 60 C. 14 40; 24 herses 1 50 C. 36 — Rs. 86 40 C. ensemble pour deux ans, donc pour un an .	43 20	
Sur le total de Rs. 86 40 C. il y a l'intérêt à compter pour deux ans	4 32	
	47 52	
Les Dépenses annuelles sont, salaire à l'intendant (économe) par an	150	
Idem pour 12 valets de charrue à Rs. 18 par an	216	
Idem pour 12 conducteurs de charrue . . .	108	
Idem pour 12 valets indispensablement nécessaires pour garder les champs du maître, faire rassembler les paysans au travail, &c. à 20 Rs.	120	
	594	
Pour faire aller les charrues et labourer la terre, il faut (outre les jours de corvée de 500 âmes et les valets salariés, comme démontré ci-bas), encore 80 bœufs à Rs. 9 la pièce, ce qui fait un		

capital de Rs. 720, sur lequel l'intérêt annuel est de 5 pour cent 36
Annuellement il y a une perte de 10 pour cent au moins sur le bétail employé à l'agriculture . 72
L'entretien de ces 80 bœufs peut coûter annuellement 320
428 — 1069 52

Les Dépenses annuelles du Propriétaire se montent donc à Rs. 2031 79
Sans y compter les dépenses imprévues, extraordinaires ou accidentelles. A cette somme il faut ajouter l'intérêt sur la valeur de la terre comme ci-haut 4500

Donc, le Propriétaire doit retirer annuellement un revenu net de Roubles en argent blanc 6531 79

Les revenus annuels d'une semblable terre consistent en ce qui suit, savoir:—

Sur un bien de 500 âmes, l'on peut compter 1000 arpents de terre labourable (chaque arpent contient 16,800 aunes de Pologne, l'aune équivalent à 2 pieds d'Angleterre) dont la moitié est ensemencée avec du bled d'hiver, et l'autre avec du bled d'été, puis 500 arpents de prairies.

500 arpents ensemencés de bled d'hiver à un boisseau de Pologne (korets) par arpent, (le boisseau, korets, équivalent à $\frac{7}{8}$ quarters Anglais) produisent ordinairement 7 grains pour un, ce qui fait . . . 3500 Boisseaux.
à déduire pour l'ensemencement $\frac{1}{7}$ . . . 500
il se perd immanquablement 10 pour cent sur le bled, lequel hiverne dans les meules 350 — 850
Il reste à vendre . . 2650 bled d'hiver,
dont $\frac{2}{3}$ froment d'hiver ou bled tendre b. 1767
et $\frac{1}{3}$ siègle . . . . . 883 — 2650

500 arpents ensemencés avec du bled d'été, comme avoine, orge, &c. produisent 5 grains pour un, ce qui fait 2500
à déduire pour la semence $\frac{1}{5}$, et 10 pour cent de perte dans les meules 750
Il reste à vendre . . 1750 bled d'été.

500 arpents de prairies, produisant 20 sagenes de foin par 100 arpens donnent 100 sagenes de foin à vendre.

Ce qui tout constitue le revenu de la terre en produits. Outre cela, le propriétaire reçoit pour la vente de l'eau de vie et différents comestibles, dont il a le monopole à Rs. 1 $\frac{1}{2}$ par âme Rs. 750
Redevance annuelle des paysans, en comptant 3 âmes mâles par habitation, ce qui fait 167 habitations, à 1 Rs. pour chaque 167

Revenu du propriétaire en numéraire . . 917

Pour que le propriétaire retire ses dépenses, et ait un revenu répondant au fond capital de 90,000 roubles, suivant le calcul précédent, il faut qu'il vende les produits comme suit, savoir :—

1767	boisseaux froment, ou bled tendre d'hiver à 13 de Pol. ou 1 Rs. 65 cts.	Rs. 3445	65	
883	„ siègle à f. 5½ ou 82 cop.	728	45	
1750	„ bled d'été à f. 4 ou 60 cop.	1050		
100	sagenes de foin à 4 Rs.	400		5624 10
	A de tels prix, les revenus du propriétaire seroient de Roubles en argent blanc			6541 10

Nota. Si le boisseau de froment qui fait ⅐ tschetverts se paye sur place 1 Rs. 95 cop. alors le tschetvert coûte Rs. 341 10¼
le transport par tschetvert jusqu' à Odessa est au prix moyen 1 20
usage des sacs, et différents menus débours sur les lieux, en route et en ville par ts. . . . 15

Ce qui fait par tschetvert, roubles en argt. bl. 4 76

Ou bien au cours de change actuel de 26½ pour cent, en ass. de bq. rs. 18 par tschetvert, auquel prix les propriétaires de la Pologne méridionale en Russie devroient vendre leur bled à Odessa.

No. V.—CALCUL APPROXIMATIF des Dépenses et Revenus d'un Possesseur de Biens fonds en ferme, de la même description comme ci-devant.

En prenant une terre avec 500 âmes mâles en ferme, l'on comp'e 3 âmes mâles par habitation, ce qui fait 167 habitations, et chacune donne annuellement 125 jours de corvée, ce qui fait en tout 20,875 jours, comptés à 20 cosseques par jour . . . . . Rs.	4175	
Le monopole de l'eau de vie fait annuellement comme ci-devant	750	
La redevance annuelle des paysans	167	
Le possesseur fermier, par conséquent, paye un capital annuel de . . . . . Rs.	5092	
d'avance, et à l'incertain, il faut donc qu'il en retire 8 pour cent, ce qui fait . . .	407	36
La dépense pour l'entretien des instrumens d'agriculture, des laboureurs, et du bétail, est la même comme celle du propriétaire foncier, à l'exception de l'impôt, que le fermier ne paie point	1069	52
Pour que le fermier retire son capital, avec les dépenses et l'intérêt, il faut que ses revenus se montent à net Rs.	6568	88

Et son revenu est environ le même que celui du propriétaire, par conséquent le fermier ne peut vendre d'autant moins le boisseau de bled, à moins de Rs. 1. 95 Cs. sur place, ou Rs. 18 Ass. de Bq. par tschetvert à Odessa, sans subir une perte. De cet aperçu résulte la question—Pourquoi les fermiers paient-ils si cher, tandis-qu'ils vendent à moitié prix? L'expérience prouve le résultat: la moitié des possesseurs des biens en ferme ont déjà fait banqueroute, en se ruinant par leurs spéculations sur la hausse du prix des bleds, d'un an à l'autre. Tandis que les propriétaires, ne retirant aux prix actuels des bleds si bas qu'environ 2 pour cent, de leur capital en terre, ne peuvent subsister, ils aggravent leurs biens par des dettes qu'ils ne peuvent payer, et il provient delà, qu'une telle quantité de biens est surchargée de dettes, que toutes les magistratures du pays sont pleines d'affaires de liquidation et des concours en exdivisions.

N. B. L'on ensemence ordinairement deux arpents de terre par âme; mais ce nombre de bras ne suffit point pour la totalité de l'agriculture, comme prouve le calcul suivant:—

Pour labourer un arpent de terre pour le bled d'hiver il faut

6 jours pour labourer deux fois
1½ —— pour biner
1 —— pour herser
7 —— pour la récolte
½ —— pour semer
1 —— pour charuer le bled
7 —— pour le battre
1 —— nettoyer, cribler, mettre en tas, &c.

24 7/10 par arpent, donc pour 500 arpents, 12,350 jours.

Pour un arpent de bled d'été—

3 jours pour labourer
3 —— pour biner deux fois
1 —— pour herser
4 —— pour la récolte
½ —— pour ensemencer
1 —— pour charuer
4 —— pour le battre
1 —— nettoyer, éventer, mettre en tas

17½ par arpent, donc pour 500 arpents, 8600 jours.

Pour un arpent de fenaison—

1 jour pour faucher
1 —— pour mettre en tas et sécher
1 —— pour rassembler, charuer, et mettre en tas

3 jours par arpent, donc pour 500 arpents, 1500 jours.

Donc pour 1500 arpents, il faut 22,450 jours, tandis que 500 âmes, divisées en 167 habitations, dont chaque donne 125 jours de corvée, ne font que 20,875 jours, ce qui prouve la nécessité du maintien du bétail et des laboureurs salariés.

OBSERVATIONS

ON THE

BENEFITS ARISING FROM THE CULTIVATION OF POOR SOILS,

BY THE APPLICATION OF PAUPER LABOUR;

AS EXEMPLIFIED

IN THE COLONIES FOR THE INDIGENT AND FOR ORPHANS IN HOLLAND:

BY

W. JACOB, Esq., F.R.S.

OBSERVATIONS,

&c.

In no country of Europe does there exist, not even in England, a greater diversity of classes in society than in Holland. In no country, except England, is to be found a proportion of disposable capital so large, when compared with its extent and population; and in scarcely any does that part of the soil, which is utterly destitute of cultivation, form a more extensive portion of the whole surface. The characteristics of the inhabitants are industry, cleanliness, economy, and local patriotism. It would be difficult to trace accurately the steps which have led to, and more so, from the combinations of circumstances here noticed, to have predicted the singular fact, that in that country the proportion of those who draw their means of subsistence from the capital and labour of the community, is much larger than in any other division of the European commonwealth.* The poor have been constantly pressing on the communal resources, and with increased force, since, by the union of the ancient Austrian provinces with the Dutch in the kingdom of the Netherlands, the freest and best of all the continental governments has been formed. The public attention, having

* In the year 1821, the whole population of the kingdom was 5,715,347, according to Smits, the Secretary *de la Commission Statistique*. In that year, the number of the poor is stated by Kirckhoff, from official authority, in his *Mémoire sur les Colonies de Bienfaisance*, to have been 753,218, *secourus par la charité publique*. Baron Malchus states the proportion of the poor to the whole population in this and some other countries thus:—Netherlands as 14; Berlin, 10; England, 9; Vienna, 10; France, $8\frac{2}{10}$; Prussia, $6\frac{7}{10}$ out of every 100, but does not give his authorities. See "Statistik und Staaterkunde," published at Stuttgart, 1826.

been intensely examining into remedies for this alarming evil, seems to have been directed, by the practical wisdom inherent in the nation, to have recourse to such means of relief as were to be found within their own territory. The unemployed poor and the uncultivated heaths presented objects, which, when brought into due combination, might be made available to the public, by offering employment to the former and by fertilising the latter. The bringing very poor uncultivated land into a highly productive state has been rarely found beneficial when undertaken by individual capitalists. A variety of causes may be shown to account for this. The necessary heavy expenditure for a series of years, whilst interest is accumulating in a compound ratio, and no returns are received; the difficulty and the cost of agents to superintend, with due minuteness, all the details of expenses and operations; the distance from the most beneficial markets, and the relative expense of conveying to them the products in small parcels;—these, and other local causes have often involved improvers of poor soils in embarrassments, which have induced them to abandon their undertakings a long time before they could ever repay them for their expenses and anxiety. On the other hand, every man who has been far from home, must have observed, on every barren heath, some spots surrounding cottages which exhibit marks of productiveness, forming a striking contrast with the sterility that surrounds them. If inquiry has been made, it will be found that, at one period, all was alike barren, that the difference has been created solely by the application of human labour. If the inquiry be pursued, and the history of the process be studied, it will be commonly found that the labour which has achieved this amelioration has been principally that which would have been either lost to the community or applied to its injury.

There are few tracts of barren land, even in this island, which do not exhibit some specimens of what may be done by industry and economy, combined with perseverance, in promoting

the comfort of the poor and improving the condition of the soil. On the continent, the specimens are more numerous and the contrast more striking. In both countries, those who are sober, careful, and industrious, may become prosperous, without much or very rigid superintendence, or, when fully imbued with those qualities, will do best when freed from all superintendence. Unfortunately, however, it is found that the greater number of those who are destitute of employment, cannot be safely left to their own spontaneous exertions. They must be stimulated by the constant exercise of immediate hopes and fears; they have not acquired the practice of looking forward to rewards for their labours, which can only reach them at the termination of months, or perhaps years. They have commonly found the solicitude about each day's supply of necessaries sufficient for itself, and have left for to-morrow the cares of to-morrow.

Besides the numbers thus destitute of employment who are capable of labour, there are, in proportion to the whole number of the indigent in every country, orphans of both sexes, barely arrived at the age of labour, or, at least, of heavy labour, who ought to be supplied with the necessaries of life. These should be inured to early habits of industry, and ought to have that portion of learning which suits their station, and the religious and moral instruction which befits all stations, imparted to them from the funds of the whole community. These two latter classes will require constant and active superintendence. The rules for the regulation of their period of work; for the nature of the work; for the rewards or privations consequent on exertion or neglect; for the food, clothing, dwellings, and implements, all require to be soberly and practically framed, and enforced by a strictness of superintendence nearly approaching to the rigidity of military discipline.

These views of the subject naturally point to the result of the experiments made in Holland, and, indeed, in some other parts of the kingdom of the Netherlands. The only establishments that encourage perseverance by the success that have

thus far attended them, are those composed of public bodies voluntarily formed, such as the "Beneficent Society," which commenced in the early part of the year 1818, to lay the foundation of its benevolent and economical operations. By joint, small contributions of numerous individuals, sufficient capital was collected to commence their labours, which have been prosecuted, up to the present time, with increased extent, and exhibit cheering prospects of still further extension. In all of these, a rigid system of superintendence was at first introduced, which has been gradually relaxed towards those individuals alone, who have shown, by their manner of conducting themselves, that they have acquired and practised such habits of industry, economy, and order, as, in the judgment of the superintendency, qualify them to be left to their own spontaneous and unrestricted exertions.

The smaller establishments in the Netherlands have not been quite so successful as that of Frederick's Oord, to which attention has been chiefly invited. It is easier and more necessary to introduce regularity of operation among a large body of people, than a small number. Thus well-disciplined armies, acting upon principles of strict obedience to superiors, and that through all gradations of ranks, are brought, with the simplicity of mechanism, to effect purposes in which they would utterly fail, if attempted without such discipline, order, and regularity.

The cultivation of poor soils is looked at with aversion by many practical men, and among the more theoretic writers has been treated of as an evil which should, at all hazards, be avoided. The latter have not unfrequently expressed their opinions, that all the poor lands now in cultivation in this kingdom, should be suffered to return to their original sterility. In the examination of this topic, which may be made before entering into the details of the management of the Dutch colonies of Beneficence, it is not necessary to involve the reader in that labyrinth of metaphysics and rhetoric which, for a short period, under the name of political economy,

enveloped in darkness subjects sufficiently plain to the more laborious inquirers, who worked statistically, and ascertained all the facts of a case before they formed a decisive judgment, or framed any general theory.

In the examination of reclaiming from sterility lands now in a condition in which they yield neither produce nor revenue, or a very minute portion of either, the subject becomes a matter of calculation, to which arithmetic rather than logic should be applied. It is that kind of calculation on which, though the exact result, either as to the period when remuneration shall be received, or the amount of such remuneration, cannot be accurately calculated, it is easy to show that the reward must arrive. The life of individuals is so short, and the uncertainty of who may succeed to reap the fruit of their labour so great, that each one may well hesitate before he embarks his capital in an undertaking, whose remuneration, however ultimately probable, or even certain, may be protracted to such a distant period as to yield it to those in whose prosperity he can feel no interest. The case is different with a community or nation. The acorn deposited in the soil, and which produces the valuable oak, may be of no advantage to the planter or his descendants; but the community, at some period, will be far more than repaid for the labour which one of its members has expended. This remark may be applied to the cultivation of poor soils, the process of which is somewhat similar.

It cannot be denied that in all soils some organic substances are to be found, which are capable of operating to produce vegetation. The most bare rocks are in time covered with lichens; they feed some of the smaller animal insect tribes; and, as the rocks become gradually decomposed by the operation of the atmosphere, the animal and vegetable matters become compounded, in a greater or less proportion, with the decomposed rock, or, as it is then termed, the soil. A proof of this process might be cited in the species of gramina, which make their first appearance on what are called, though

they are not strictly so, barren sands. Without adverting further to the operations of mere nature, it may, however, be affirmed, that every description of soil will produce something that, either mediately or immediately, may be converted into sustenance for man or animals. We may advance another step, and maintain that, by the application of labour, every soil will in time yield more than sufficient for the support of the labourers, whether human or animal, whose exertions are applied to its amelioration, provided the whole exuviæ of such labourers be applied in aid of their labours in the form of manure.

A calculation will naturally here arise, as to how long the period will be during which the labour shall exceed the produce, and a comparison may then be instituted between that period and the more extended one; extended, perhaps, to the dissolution of all things, during which the produce shall exceed the amount of the labour.

We may illustrate this by adverting to actual practices, very familiar to every man who has bestowed much thought on economic subjects, and has mixed with his reflexions some attention to the progress of our own agriculture. In the common rotation of light land husbandry, by which the poorest sandy soils have been rendered fertile, the common course is, turnips, barley, clover, or other artificial grasses, and wheat, or, perhaps, on the continent, rye. The first of these rotations, in common seasons and with common prices, will not defray the expense. There will be a loss of capital to the undertaker, if he relinquishes the process at that period; the soil will, however, be somewhat improved. During the next rotation of four years, if a somewhat less portion of manure and labour be applied, equal crops will be obtained; or, if the same portion of labour and manure be administered, the result will be heavier crops than after the first rotation. By every rotation the original soil will continue to be improved, upon the supposition here made that the same quantity of labour and manure

are continued. As the produce of the land increases, the portion of manure which it will afford will necessarily increase, and the subsequent fertility be in a constantly-advancing state. As vegetation is compounded of other parts besides the soil, and as these will not increase in power like it, the subsequent advances in fructification will be gradually slower than the first steps. The air, the light, the heat, the rain, are all component parts of vegetation which are not susceptible of increase, but only of a more judicious application. If the same application of labour and manure be furnished through three successive rotations, the productions of the third crop may be double that of the first; but, in the sixth rotation, they will not be double that of the third, nor will the twelfth be double that of the sixth *.

Without entering into a discussion, which sufficient data do not admit, as to the proportionate increase of each rotation, it may be safely assumed, that a time will arrive when patience and perseverance in the course here noticed, must raise the productive power of the soil to such a pitch as may allow annually of an increasing quantity of its produce being spared from the application of it to future cultivation. The same observations may be extended to poor soils of other descriptions; to cold clays, to peat mosses, to bogs, and, in short, to all land now unproductive. The rotation may be of more years; the progress may be more slow; and the process demand a longer term of the labour of men and animals, before the production shall exceed the consumption. However long the period may be, it must be but short when compared with that subsequent period in which, by the perseverance that first obtained fertility, the production shall surpass the consumption.

* This remark, though known near twenty centuries ago, is one of the *discoveries* of modern political economy which, "though true, is by no means new," although it has been applauded as such by the initiated, when couched in their technical phraseology, thus, "the ratio of the net produce of the land to its gross produce is, in the progress of improvement in cultivation, continually diminishing."

In the progress of amelioration the poorest soils may be viewed as machines, in whose construction some advances have been made, whose operations are not yet perfected, but which, by additional improvements, are *certain* to effect the purpose for which they are designed. They differ, however, from such machines in most important respects; the more they are worked, the more efficient do they become, and the less repairs do they require. In stating that such earthy machines are *certain* to effect the intended purpose, certainty is not meant to be applied to the individuals who execute the machinery, but to the whole community, of which they form, perhaps, but a small portion.

The ill success that has frequently attended the efforts of individuals to ameliorate poor soils has very naturally checked the ardour which would have otherwise led to such undertakings. If the cases of such unsuccessful operations be examined with attention, they will be found more frequently to have been occasioned by their having been undertaken under momentary impulse and sanguine excitement, than from any clear and well arranged previous calculation. When, in the course of the fluctuations which have been witnessed of late years, the prices of agricultural produce have ranged excessively high, and, especially, when such prices have continued advancing for a series of years, a degree of enthusiasm has been directed towards agricultural pursuits. Persons have embarked in them with little practical experience; capital has been directed to them that was before moderately profitable in other modes of employment, and land has been brought under cultivation which the proprietors of it had never before supposed would repay them. In such times of excitement, all the necessary expenses of cultivation have partaken of the high prices of produce. Working cattle, human labour, manure, seeds, and even the implements of husbandry, have been enhanced in their cost. Those who entered on such operations, being commonly of a sanguine temperament, instead of

marching with the slow pace with which nature proceeds, hastened with rapidity to extract from the soil some portion of the wealth they had buried in its bosom. In such a course, the amount of the first outlay was overlooked in the firm expectation that it would soon be returned with ample reward. A few years, or even a single year of superabundant productiveness, may have changed the prospect; produce falling in price, cattle losing a great part of their value, labourers offering their services for lower wages, alarm the improver and terrify him from proceeding. Under such circumstances many an operation has been suspended, which, by perseverance, might have become beneficial, if not equal to the original expectations, at least more beneficial than a total abandonment.

If such a course of proceeding as is here described had been dictated, not by temporary excitement, but by sober calculation, it would not have commenced at a period when prices of produce and of all connected with it ranged very high, but when they were in that medium state which gives the best assurance of durability. It would not have been abandoned when prices had sunk beneath their medium level; and thus extreme losses on both sides would have been either escaped or lessened.

It is scarcely to be expected that the operation of cultivating the poorer soils should be undertaken from the mere desire of personal gain, when the discouragements which have in many cases opposed themselves to its success are duly considered. The chief points on which success must depend are patience and perseverance, neither of which are the most common attendants on the eager aspirants after individual profit. A community acting with unity and firmness, excited by some common principles, imbued with benevolence and patriotism, and placing themselves under a superintending body selected for their practical knowledge, their prudent judgment, their strict economy and unspotted integrity, may conduct such

operations as are here suggested with the prospect of certain ultimate success. They may look forward with confidence to a period when their labours and anxieties will be rewarded by the enjoyments they will confer on numbers who, but for their exertions, might have pined in misery or have perished in want.

The practicability of achieving the object of bringing our worst lands to a degree of highly productive cultivation, and with enduring profit, after a course of years of perseverance, may be inferred from what has been performed in other countries at no great distance from our own. In the Netherlands, the district called Waesland, between Ghent and Antwerp, is a mere agricultural country. It is better peopled, better cultivated, and more productive than any other spot in Europe of similar extent. It was, in the time of the civil wars in Flanders, a mere sandy heath without inhabitants, without cultivation, and without live-stock. The change has been effected by persevering labour through many generations; and the results of that labour are most strikingly exhibited in the fruitful fields, the beautiful cattle, the healthful and cleanly population, the comfortable residences, and all the other visible marks of rural prosperity.

Another division of that country, the Campine of Brabant, situated between Maestricht, Breda, and Antwerp, was formerly a most barren heath. It is now chiefly cultivated; but sufficient portions of it are still left to show what was its pristine condition. These, as well as most other portions of the more productive parts of the Netherlands, have, in the course of many generations, been brought to their actual high state by the perseverance of the ecclesiastical communities, who were formerly the great landed proprietors, and the great promoters of rural civilization in Europe.

The Abbé Mann, an Englishman by origin, who was a member of one of the religious communities in Flanders, writing in 1795, gives the following account of this district: "It is well known that the Campine of Brabant, which is the northern

part of that province, consisted originally of sand, covered with heath, interspersed with lakes and extensive marshes, and here and there with woods of fir. Tradition reports it to have been once a part of the sea. To this day, where cultivation has not extended, the soil of itself produces nothing but heath and fir; the sand is of the most barren and harsh kind, nor can it be rendered fertile but by continued manuring. As the property of this ground may be acquired for a mere trifle, many have been the attempts of private persons to bring tracts of it into cultivation; every means have been tried for that purpose, and government has given every possible encouragement to it. But I have not yet heard of any one, however considerable might be his fortune, that has succeeded in it, and many have been ruined by the project. What is cultivated in the Campine, is owing to the religious houses established in it, especially to the two great Abbeys of Tongerloo and Everbode. Their uninterrupted duration for five or six hundred years past, and their indefatigable industry, have conquered those barren harsh sands, and rendered many parts of them highly productive. The method they follow is simple and uniform: they never undertake to cultivate more of this barren soil at a time, than they have sufficient manure for, seldom more than five or six bunders * in a year; and when it is brought by labour and manuring into a state capable of producing sufficient for a family to live on, it is let out to farmers on very easy terms, after having built them comfortable habitations. By these means many extensive tracts of the Campine are well cultivated and covered with villages, well built houses and churches. The Abbey of Tongerloo alone furnishes about seventy of its members as curates to these parishes, all of whom owe their existence to that original stock. I may here add, and that from the undoubted testimony of the historians of the Netherlands, that the cultivation of

* The bunder is a local measure in the Low Countries; it varies in different parts, but in Brabant it contains nearly two and a half English statute acres.

these rich provinces took its rise from the self-same means, eight hundred or a thousand years back, when they were in a manner one continued forest."

The influence of communities, also ecclesiastical, has operated most beneficially in increasing the productiveness of our own soil. We were not so densely peopled, at the period of the civil wars in Flanders, as that country. It had felt the powerful effect of commerce and manufactures to stimulate rural improvement, long before any such excitements had been introduced into this kingdom. At that early period, when the Monks of Glastonbury, of Thorney, and of Crowland, rescued the prolific plains of Sedgemore, on the rich levels of Lincolnshire, from their unproductive state, by drains and embankments, the people of England required meat rather than bread. Breeding, and feeding land, were more in request than arable fields. The ecclesiastical communities employed their labourers and their savings, rather in calling into existence land immerged in water, than in converting barren heaths into corn-bearing fields. The valuable improvements made by those communities have continued to enrich this country long after they had fallen before the rapacious Henry, under the charge of voluptuousness, but under the real crime of enormous wealth.

Communities, whether ecclesiastical, civil, or even benevolent, are subject to evils which make them efficient for the purpose here under consideration, only to a limited extent. They commonly degenerate in time. Individual interests are created in them, which interfere with, or diminish the good effects of the general interests. Even in charitable bodies of long standing, we may too often trace inroads on the funds of the institutions, for the sake of the patronage acquired by some of its members, and the pecuniary emolument extracted by others. But, if such communities could be maintained in all the original purity which attended the freshness of their foundation; if the ardent benevolence that founded them could be kept up with equally intense heat, they would still be less use-

ful as instruments of rural improvement, than the feeling of individual interest, when stimulated by the hope of independence, and encouraged by the progress made at each step of advancement, towards such independence. The monks of Flanders were induced by this conviction, to establish families on farms, as soon as they could be made ready for their reception, and hence, as will hereafter be seen, the Benevolent Society of the Hague have placed the little farms at Fredericks Oord; in the hands of such individuals as have evinced, by their conduct, that they are able and prepared to proceed in the course pointed out, with fair prospect of personal benefit.

It seems clear that, up to a certain extent, an extent which only actual experience can determine, and that in each individual instance, the best mode of ameliorating the poorer soils is by the powers of a joint stock company, or community, possessing sufficient funds to defray the first expenditure, sufficient power to enforce order and regularity, and sufficient activity and watchfulness to superintend the actual administration. Beyond certain limits the exertions of each individual will be the best security for the ultimate success of the great operation. Attention bestowed on the labour and habits of thought and sobriety of the labourers will direct those who superintend them to such persons as are first fittest to be trusted to their own discretion; and the practical exercise of such attention will be a far better guide to the judgment of the superintendents, than any previous rules that can be laid down.

We have only been hitherto considering the cultivation of our poor lands, in the narrow view of the pecuniary benefit to be derived from the operation either by the communities or societies with whom it may originate, or to be obtained by the nation viewed as one body. There is, however, a higher and far more important view, which remains to be taken of such proceedings. The numbers of our indigent fellow-subjects, and the striking augmentation of juvenile criminality, imperiously

call on every friend of his country, and of humanity, for attention and regard. It is obedience to that call which has dictated these sheets, and which will occasion their being submitted to the examination of the public. If pecuniary advantage alone could be proposed by cultivating the poorest of our soils, it would be an inviting object of attraction, but it is impossible to believe, that if no such benefit was proposed, but merely a plan submitted which promised to lessen the misery of our adult fellow-creatures, by furnishing them with subsistence in exchange for their labour, and which, by appropriate education, combined with the formation of habits of industry, economy, and subordination, could be made available to improve the moral condition of the rising indigent population, it should fail of receiving active support in this kingdom.

If the weight of pauperism could not be wholly removed, if it should be made apparent that only an alleviation of that weight could be administered, and that be accompanied by a diminution in the amount of the parochial assessments it would be deserving of extensive patronage and assistance.

As examples in practical economics are the best proofs of the merit they claim, as they speak plainer and more forcibly than any abstract discussion, we may proceed to take a view of what has been already performed by our sagacious, indefatigable, economical and charitable neighbours in the Netherlands, to lessen the weight of pauperism, and improve the moral habits of the juvenile portion of it. In various parts of the kingdom, establishments had been formed for the relief of the poor by furnishing them with employment in reclaiming waste lands; they were mostly on a small scale, but, as far as they have proceeded, have been found beneficial. They can, however, none of them be considered so fair a trial of the experiment as the Colony founded at Frederick's Oord, and therefore the chief attention will be directed to that large establishment.

This institution is indebted for its origin, as well as for the successful progress it has hitherto made, to the penetration,

ardour, and indefatigable benevolence of General Van den Bosch. He had served in the East Indies and passed much of his time in the island of Java; he purchased an estate there and entered with zeal into plans of agriculture. By accident, a number of Chinese emigrants under a Mandarin of the fourth class, named Tjan-hoeck, an experienced cultivator, settled near him. The general soon observed that, however carefully he might cultivate, the crops of his Chinese neighbour uniformly exceeded his own, and he was induced to form a connexion with him, which proved highly beneficial; as, when he returned to Europe, he was enabled to sell his estate for 150,000 rix-dollars which had originally cost him but 25,000.

The experiments and processes of the Mandarin, after much revision and examination, have been first made known in Europe * by the general; and, as far as the difference of circumstances justified, have been subsequently introduced into practice in the colony of Frederick's Oord.

The king of the Netherlands, with that active intelligence, the constant exercise of which for the prosperity of his dominions has secured for him the respect and attachment of his people, was occupied in 1817 with an extensive plan for bringing into productive cultivation an extensive district of waste heath between Maestricht and Breda. His attention was drawn to the communication of General Van den Bosch, and his patronage was extended to the infant project. A public meeting was held at the Hague in the beginning of 1818, when the Society of Beneficence was formed.

The constitution of the Society was deliberated upon, and fixed in the following manner: Two committees are appointed for the administration of its affairs. The first of them, styled

* He first published a work in Dutch, entitled "Verhandeling des General Major Van den Bosch, over de mogelykheid de beste wijze van uitvoering en belongrijke voordeelen eener algemeene armen-inrigting ir 't Rijk der Nederlander," or a Treatise by Major General Van den Bosch on the practicability of instituting in the most advantageous manner a general pauper establishment in the kingdom of the Netherlands.

the Committee of Beneficence, consists of a president chosen for life, Prince Frederick, the king's second son, of two assessors or assistants to the president chosen annually, but always re-eligible, and of nine other members, one of whom performs the duties of secretary.

This committee is divided into four sub-committees, one of which superintends the finances, the second instruction, the third the correspondence, and the fourth general purposes. One assessor is president of the second, the other of the fourth of the sub-committees, the two others choose their own president. When the Committee of Beneficence is not assembled, its duties are executed by a committee composed of members whose constant attendance may be depended on, called the permanent committee.

The assessors are made personally responsible, the first of them that nothing contrary to the laws of the society be allowed to be inserted in the orders of the committee, and the second of them, that, in the execution of the orders, (which is exclusively entrusted to him) the funds of the society are not to be allowed to be applied to any other purposes than those for which they are specifically appointed. Each year one member of this Committee of Beneficence goes out, but may be re-chosen.

The second committee, called the "Commission de surveillance," consists of twenty-four members, chosen annually, and re-eligible, who select their own president and secretary. The former office is filled by the Prince of Orange. Its duties and powers are to examine and audit the annual accounts, to watch over the expenditure, and the plans and operations undertaken by the society, or entered upon to assist indigence, to relieve from its responsibility those who have performed their duty, and, where necessary, to order prosecutions against such as may have failed in the performance of it.

No laws can be made or changed but such as are adopted by these committees, and approved by a majority of the members of the society, at a general meeting.

When the laws of the society had received the sanction of the king, a public communication was made, and the governors of provinces, with the military and civil heads of departments, and other local authorities, were invited to aid the institution, by becoming members of it, with the addition of all other benevolent persons who were disposed to do so. By this means, more than 20,000 individuals were added to the Society, and subscriptions collected amounting to upwards of 70,000 florins or guilders, (5830*l.* sterling.)

Local sub-committees were established in the cities, as well as in the rural districts. In the first, they were composed of two members of the regency, or corporation, of two clergymen of the different religious sects, and two of the most distinguished voluntary members of the society. In the latter they consisted of the chief magistrate of the division, of one clergyman, and one member of the society. They were to receive contributions, and to watch over the interests of their own commune in the distribution of the funds of the society. An account is open with the Bank of the Pays-Bas, into which the general and local committees pay all sums; all payments are made by the permanent committee, in the note for which is written the name of the person to whom it is to be paid, the purpose for which, and the order by which it is authorised. To simplify this part of the business, all the heads of expenses have been fixed, and can in no case be exceeded.

The society, after being constituted, and satisfied that the funds at their disposal would be sufficient to warrant their proceeding with the experiment they have projected, purchased the estate of Westerbech Sloot, near the town of Steenwyk, on the confines of the three provinces of Friesland, Overyssel, and Drenthe. The estate comprehended about six hundred arpents or morgens *, between twelve and thirteen hundred acres of

* The Dutch morgen is somewhat more than two English statute acres; $4\frac{178}{1000}$ are equal to ten English acres. The Dutch guilder for florin, at the general rate of exchange, is worth one-twelfth part of a pound sterling, or 20*d.*

heath land, about one-sixth of which had been converted into fields, or was covered with some bad wood. This estate cost 56,000 florins or guilders, or about 4660*l.* sterling. A small stream, the Aa, which runs through it, was made navigable for boats; buildings for a store, a school, a spinning-house, and as dwellings for fifty-two families, consisting of from six to eight individuals in each, were speedily erected. The communes sent some indigent families to occupy the houses, who ceased from that time to be a burden on them. All these operations were commenced early in September 1818, and on the 10th of November following, the colonists entered upon their new habitations.

As a specimen of the economy of this truly philanthropic society, it may not be amiss to begin by noticing the maximum at which, after much examination, the outfit of each family, consisting of from six to eight individuals, was fixed, and the estimate of the cost of each separate article.

	Guilders.
Building each house	500
Furniture and implements of husbandry	100
Clothing	150
Two cows, or one cow and ten sheep	150
Putting the land into cultivation and seed for the first year	400
Advances in provisions for the first year	50
Advances of other kinds	50
Flax and wool to be spun	200
7 acres of uncultivated land	100
Guilders	1700, or 141*l.* 13*s.* st.

As three families contain twenty individuals, two of them consisting of six persons each, mostly at maturity, and one of eight persons, six of whom are youths, from six years old upwards, the expense of outfit for each person amounts to 22*l.* 6*s.* 7*d.*, which, as hereafter will be shown, is expected to be reimbursed to the society in sixteen years, by the rent to be received from the colonists, and by the labour they afford in its service.

This is, however, anticipating what will presently be at more

length discussed. This calculation of the outfit was made before Fredericks Oord was begun to be settled. That it was judiciously made is best proved by the fact, that the society have been enabled to form contracts for the building of many of the houses, at a sum nearer to four than to five hundred guilders. Some other of the items have cost less than the estimate; thus a saving is now effected at the rate of $2\frac{1}{2}$ per cent. on the 400 guilders allowed for putting the land into cultivation, and in no case, by the fundamental laws, can any exceeding of the estimate be paid. The house, barn, and stalls are under the same roof, the whole range being about fifty feet in depth. The front is towards the road, about sixteen feet in length, which forms the dwelling, containing one room, about fifteen feet square, some small sleeping closets behind it, and a place above in the roof for keeping the tools and stores belonging to the family. The barn and stalls comprehend a space about twenty-four feet square, and behind it is the privy, and the reservoir for preserving whatever may be converted into manure, such as water that has been used for washing or cooking, and what runs from the stalls, which is conducted to it by drains. The foundation of these buildings is of brick, as are the walls of the dwelling part. The barns and stalls are boarded and tarred, and the whole is covered with a roof of reeds *. As the labour of building those places is performed by the colonists at the rate fixed, the cost of bricks made from clay, and burnt with turf, both found on the land, does not amount to more than ten shillings the thousand. Lime is made on the estate from sea shells, which are brought from the shore of the Zuider Sea, and burnt in field kilns, in a simple and elsewhere unpractised mode. This economy in the rate of building must have been applied to every other head of disbursements, and to all the operations of the society, or so much as has been done in a few years could not have been effected.

* By recent calculations it has been ascertained that it is really better to use only bricks for the barns, and tiles instead of rushes for the roofs; and in the buildings that mode will be hereafter adopted.

The projected views of the society lead them to estimate that this sum of 1700 guilders, or 141*l.* 13*s.*, will be repaid to it in sixteen years by the colonists; whilst the annual rent with which they are charged will be equal to the interest. This rests upon the plain calculation that the annual value of the proceeds of the labour of six persons beyond the value of the produce on which they subsist, will amount to thirty shillings per year, or, to carry it still further, that the produce of the labour of each of the individuals will exceed their subsistence about five shillings per year; or, at the rate of less than one penny and one farthing per week.

The first principle of the society is that no colonist shall ever be, even for the shortest period, unemployed. With this view the population is divided and subdivided into bodies who work under the inspection of different ranks of officers with military precision. A superior director, at first General Van den Bosch, superintended the whole establishment. A sub-director presides over one hundred families. These are again divided into twenty-four families, over whom a quarter-master is appointed. The quarter is formed into two divisions, at the head of each of which is a section-master, a practical man, who is the example and the instructor of those under his command, in the necessary work which they are destined to perform. Thus the whole mechanism resembles that of an army, divided into sections, companies, battalions, and brigades. In fact, most of the sub-directors and quarter-masters are officers belonging to the 6th infantry regiment. Military men, when properly qualified, seem the best adapted to execute duties which require implicit obedience towards superiors, and firmness in the enforcement of attention and submission on those under their command. The labourers are summoned to their work at an early hour *, the

* At five in summer, and at six in winter, the colonists are summoned by a bell to rise. An hour is allowed for their domestic purposes, when at the second bell they must assemble before the door of the quarter-master, and when they have answered to their names be led by the section-master to their work. He who does not answer to his name is entitled to no wages for that day.

roll is called over, and they are led to their various occupations. Their occupations are distributed according to the plan of the chief director, who gives out his general orders. At first a proportion of the men work at making bricks, preparing lime and timber, and building the small barns and dwellings; but the greater portion is employed in field-labour. The chief, almost the only implements, are the spade and the hoe, and though the artisans and handicraftsmen from cities and towns are at first awkward in the use of such implements, with a few days to instruct them, and active examples to incite them, they soon become sufficiently expert. Every kind of labour is performed by the piece, nothing by the day. At the end of each day's labour the workman receives a card specifying the amount of his earnings, for which he may procure, at the public store, food for his support in stipulated quantities, at fixed prices. If, at first, his earnings fall short of his wants, credit is given him, which is discharged as his future earnings increase. Such cards circulate freely within the colony, at their money value. The female parts of the community are also constantly employed in spinning or weaving; and the wool and flax used in those occupations are furnished by the society at first from purchases, but, as the colony advances, from their own sheep and flax fields. They, like the men, are paid by cards. The attraction of personal gain, with the constant application of the stimulus arising from rigid inspection, have been found in most instances quite sufficient to insure industry, without the frequent recourse to personal punishment for idleness.

As in such a community there must be always a portion who, from sickness, old age, or other circumstances, are incapable of performing their due share of the work, one day and a half in each week is allotted to the other colonists to work for them, and for this they are remunerated at the rate of 8*d.* per day in winter, 10*d.* in spring, and 1*s.* in summer.

The mode of keeping the accounts is simple, and such as to

satisfy the colonists that strict justice is executed towards them. Each household has a note-book, in which all the transactions of the several members of the family are entered, and these are checked every week by comparing them with the books of the society at their storehouse.

As in well regulated regiments, the subaltern and non-commissioned officers examine the knapsacks, accoutrements, and arms of the men under their command, so do the sub-directors, quarter-masters, and heads of divisions inspect, at short periods, the state of the tools, implements, cattle, furniture, and cloathing of each household, when those who have injured any of them, or have lost or destroyed any part, are charged with the expense of replacing them. The same rigid examination is applied to each portion of the agricultural operations of the several households, especially to the careful preservation and regulated mode of managing whatever substances can be made of use to cultivation in the shape of manure. In this branch of attention to the preservation, management, and application of manure, the practices of the Chinese have been as closely followed as the difference of climate, soil, and productions will admit. The rules are minute and precise, and as it is on the due administration of this part of the agricultural operations, that the success of the society as well as of the individual colonists must depend, they are adhered to and enforced in a way, and to an extent, that leave nothing to private caprice or to ancient prejudice.

Although it is not the design of these observations to enter into all the details of the husbandry as practised at Fredericks Oord, yet the providing and managing the manure, as the foundation on which its maintenance is built, may deserve some degree of attention.

When the house and barn are built, the soil formed by mixing sand and clay, to a consistence which makes it sufficiently retentive of moisture, the land manured, dug, and one crop sowed or planted on it, then a family, consisting of from

six to eight persons, is fixed on it at an expense, as before stated, of 141*l.* 13*s.* To enable this household to subsist, to pay the rent, and to save something, it is necessary that very intense manuring must be persevered in. The directors, therefore, require, and by their enforcement of the prescribed regulations, indeed, compel each family to provide sufficient manure to dress the *whole* of the land every year. For this purpose each household must provide itself with 300 fodder of manure, yearly; or, in English terms, 150 tons, or at the rate of more than 20 tons to each acre. When it is considered that few of our best English farmers can apply one half that quantity of manure, it will not appear wonderful that seven acres should be made to provide for the sustenance of the same number of persons and leave a surplus to pay rent and to form a reserve of savings. The minimum quantity to be provided by each household is 25 fodder every month, but attempts are making to raise it up to 30 fodder monthly. It has been stated in the rate of outfit, that on each farm the live stock consists of two cows, or one cow and ten sheep, to which may be added pigs, in number corresponding to the progress which the family may have made towards prosperity. The excrement from such a small number of animals, added to that from six or eight human beings, however carefully every particle might be preserved, would not nearly enable the cultivator to manure his small portion of land once even in four or five years.

It hence becomes necessary to form masses of compost the collecting the materials for which forms the greater part of the employment of the colonists. They are created almost wholly by manual labour, of that kind, which, but for such an application of it, would be wholly lost to the community. As straw is at best, in the early period, not abundant, and as that from the corn must at first be chiefly used as food for the cattle, or for covering to the houses; other materials, which the heaths abundantly furnish, are resorted to in order to make beds for the cattle. The heath land is pared, but the operation is

to cut with the spade a very thin slice of the earth, and not to the bottom of the roots of the plants, that they may, as they soon will do, shoot again ; the parings are not only made thin, but in narrow strips or small spots. Thus but little soil is taken away, and the roots, though cut, are not all of them destroyed ; the parts that are left bare, are protected from being too much dried up by the sun and wind, and the seed of the ripe heather is scattered over the spaces left bare near them, and soon bring forth the same plants. By this operation there is a constant succession provided of heathy material.

This paring for the heath is a joint operation performed by the men in a kind of military lines. The society pays each for the work he performs, and, when the average cost is ascertained, the sods are sold to the several households at the same price, and are carried to their respective farm in small one horse carts, which are kept by the society for that, and for similar purposes, to which mere manual labour cannot be so beneficially applied. When these sods are dried and conveyed to the barns of the colonists, they are piled in a kind of stack, and portions of it are pulled out, not cut out, to insure their being broken into small fragments. With these the bedding of the cows or sheep, as the case may be, is formed.

General Van den Bosch does not approve of the use of bog turf or peat as one of the materials of compost. He has found it not soluble in animal excrements, and finds it to impede the process of fermentation which is the most important part of the preparation of the heaps of manure. He has, therefore, adopted another expedient by paring the second year's grass land, whether of clover, ray grass, or fiorin. These clods containing a proportion of the roots of the plants which have been before harvested from them, and much garden mold, become useful auxiliaries to the heathy turf, and spare the use of that material which, if solely applied, would require almost as much land to supply it as the farm itself. According to the General's experience, two loads of parings from the clover or grass ley are

equal in effective operation to three loads of the sods from the heath lands. The straw of the buck wheat is also, as far as its small produce extends, made use of for the same purpose as the parings of the heaths and the leys.

The bedding of the cattle with fresh material is performed every morning and evening, and remains under them seven days and nights, when it is wheeled to the dunghill. Each morning that which lies near the hinder part of the cow is thrown forward, and the part towards its head takes its place, and fresh heather, about a quarter of a fodder, or 250lbs. added to the bedding: the same is also done every evening. The sheep and pigs are only supplied with fresh heather once a day. It is reckoned that ten sheep make an equal quantity of dung with one cow. It must be obvious to every one that the changing and consequent turning over thirteen times must make the mixture of the animal and vegetable substances more equably rich; and the uniform treading of it must break it into small particles and give greater scope to the fermentative putrefaction.

Each week the stalls are cleaned and the dung conveyed to the place appointed at the back of the barn. This is of a round shape, from three to four feet in depth. The bottom and sides are walled with either clinkers or turf, and made water-tight. It is commonly from twelve to fourteen feet in diameter, and sufficiently capacious to contain the dung made by the cattle in the course of four weeks. The mass is thus composed of portions which have remained from four weeks to one day, over which the ashes from the household and all the sweepings of the premises are strewed. Adjoining to the dung-heap is the reservoir, into which the draining of the stalls of the house and the human fæces is conveyed. This cess-pool contains about a hogshead, must never be allowed to run over, and if it has not rained, must every other day be filled up with water, and then with a scoop taken up and sprinkled over the heap of dung. As this heap contains four weeks dung, or 30 fodder,

or 15 tons, the administering fourteen such portions of rich fermenting matter must vastly enhance the value of the whole for the purposes of vegetation.

At the end of the fourth week the dung-hole (called locally the gierback) is emptied, and its contents thus again turned over, the most putrid parts being by this means brought to the top; it is formed into a heap from three to five feet high, and carefully covered with sods; by this covering the fermentative heat is prevented from evaporating, and the rain water is kept from the mass into which, if it penetrated, it would check fermentation. When the heap has lain and fermented during one, two or three months, it is carried to the field which is to be manured with it. The covering of sods is separated from the heap, and carried to the dung-hole, where it is laid at the bottom of the next monthly accumulation, and imbibes with it an equal proportion of vegetative force.

There is some tact necessary to ascertain the precise point of fermentation when the compost can be most advantageously applied to the soil, but all the rest of the process which has been here (it is feared too much at length) described, may be executed as well after a few days initiatory instruction under active inspection, by one who was previously ignorant of agriculture, as by the man who has practised nothing in the course of his life but ploughing, sowing, and reaping. In fact, General Van den Bosch has found that the tailors, masons, shoemakers, and even the Jew-pedlars brought from the towns make quite as useful and flourishing colonists, as those brought up with all the ancient prejudices of farming labourers.

The importance of this subject of accumulating manure must excuse the review of some other sources from which it is procured.

The roads within the colony of Fredericks Oord are formed with heather, sand, and peat. They are necessarily very bad, and scarcely passable, except by the peasantry in their wooden

clogs. But this mixture, under the influence of the air and the water, when combined with the animal excrements which, though sparingly, are in some degree mixed with it, is a useful auxiliary supply of manure. The ditches, with which the houses and farms are fenced, in some cases, or the earthen banks in others, are sources from whence some supplies are drawn. These, though secondary to the great resource already described, when collected form a large mass. Lime is made, in the open fields, from sea-shells; these are strewed, in alternate layers, with dried peat. Passages, for the fire and air, are left through the whole of this field-kiln. It is covered over, very closely, with moistish sods, so as to prevent the heat from escaping in too great portions. It is set on fire, and continues to burn from three to five days, when the whole mass of peat-ashes and lime is mingled together. This mixture is then, with the scrapings of the roads, the debris of the earthen fences, the bottoms of the ditches and canals, and other substances, formed into a compost, and applied to the soil.

It will be easily perceived that, in the species of cultivation carried on in these poor soils, the greater portion of the labour must be engrossed in the preparation and application of manure. The labour with spades of six individuals to dig seven acres of land, how frequently soever, in the course of each year, it may be thought necessary to repeat the operation, can occupy but a small share of fifty-two weeks. The planting or sowing, with the harvesting, can occupy but a still shorter space; and thus the remainder may be usefully employed in the concoction of the composts for manure.

This subject of manure has been extended to a greater length than was originally designed. It will, however, render it less necessary to exercise the reader's patience on the parts of cultivation which are to follow the dung. This is, however, the all-important part. Dung is to cultivation the moving ower; it is to agriculture what the water, the wind, or the steam is to

the mechanical improver. As the mechanic must first ascertain the extent of the power he can command before he constructs his machine, so must the agricultural improver, previously to his commencing, know the extent to which he can raise his provision of manure.

In what has preceded there has been shown the way, not in which may be, but in which actually is, obtained from the poorest land, by the labour of man almost exclusively, a quantity of manure, which no farmer in England, at a distance from a great city, has ever thought of applying to the soil. He is not a bad farmer who can so manage as to have ten loads of dung per year expended on his land; and it is doubtful if one-tenth of our English farmers apply to each acre half that portion. By the actual practice on the colonial, the power is seen to be gained; and such a power, in whatever mode it may be applied, is no small acquisition for any country, but by far the greatest to a country where thousands are in want equally of employment and of food.

It may be thought that this quantity of manure contains less fructifying power than that composed of a greater proportion of animal exuviæ. It would be rather difficult to determine that point chemically; and nothing but presumptive arguments, or experiments not plainly or carefully, or perhaps, fairly made, can be appealed to. By the continued fermentation that is kept up till the manure is buried under the soil, less nutritive power escapes than does in our common husbandry. Grouner, a German agricultural writer who visited this colony and drew up a detailed account of it, states the effective value of one ton of the compost to be equal to 2½ bushels of rye. If that be estimated at 2*s*. 8*d*. per bushel, it would give the value of the corn produced by it to be 6*s*. 6*d*.; or, that the whole 150 tons of manure applied to the seven acres of land would produce crops worth 48*l*. 15*s*. more than the same land would yield without such manure. This is, however, not the way to view

it. After mere digging and sowing, without manure, such land might, the first year, yield some increase, though scarcely sufficient to furnish the means of subsistence to the cultivator. In the second year, it would scarcely produce more than the seed, and in the third year, probably not the seed. What may be the productive power of this kind of compost we may not be enabled to ascertain; but the effect of it may be seen in the large crops that are annually raised, and which all accounts agree in describing to be increased with every successive rotation.

When these little farms are brought into cultivation, they are usually divided into four fields, of near an acre and a quarter each, one field of near an acre, and the remainder is occupied by the site of the house, barn, and stalls, and by a garden and a patch for early potatoes. One of the fields is sown with rye, which, in the spring, is cut green for the cows; it is then sown with barley and clover-seeds, and the barley is harvested. Another field, of the same extent is cultivated wholly with keeping potatoes; another is sown with rye, which is harvested, and supplies the household with bread; and the fourth has a crop of clover, partly cut green for soiling, and partly made into hay. The other field, of about one acre, is in permanent grass; either ray grass, or, what is now said to have been found more advantageous, of fiorin.

Nothing is to be added on this part of the subject, unless it may be necessary again to say, that the rotation, the harvesting, and every operation, is under the inspection and direction of one of the officers of the establishment.

After a few years' experience, it has been found that, on the average, the annual excess of produce over subsistence, of each of the first fifty-two families established at Fredericks Oord, has amounted to 100 guilders. The average produce was thus:—

	Guilders.			
400 bushels of potatoes, at 10 sous per bushel	200			
40 bushels of rye . . 32 s. . . .	64			
60 bushels of barley . 28 s. . . .	84			
Vegetables from the garden . . .	25			
Produce of two cows	100			
Gained by spinning	100			
	G. 573	or	£47	14 0
The annual expense of a family of six or eight persons; if of six, of persons of mature age; if of eight, six of them being children above six years old.				
150 bushels of potatoes for food, at 10 s. .	G. 75			
20 bushels to plant . . 10 s. .	10			
48 bushels of potatoes, 20 bushels of barley-meal, and the first cost of two pigs for fattening	62			
5 bushels rye, for seed	8			
5 bushels barley	7			
60 ells linen, at ten sous per ell . .	30			
60 ells coarse woollen cloth, at 12 s. .	36			
Making the clothing	13			
Consumption of bread, butter, oil or candles, and other small objects, at the weekly rate of 3 guilders and a half . . .	182			
Rent to the Society . . .	50			
	G. 475	or	39	11 8
Leaving as excess . .			£8	2 4

The annual produce of the farm, as shown in this statement, drawn up from actual regular accounts, and published under the sanction of a most respectable committee, shows what a state of fertility, in a short period, may be created on land worse in quality than some millions of acres which, in this kingdom, are utterly unproductive. In the progress of advancement, the society becomes gradually reimbursed for a considerable part of the sum which composed the outfit of the several families of colonists. They will have gained rent, at the rate of about 12*s*. per acre, for the seven acres of land, the house, and barn. They will have been paid for the flax and wool which has been spun; for the use of the draught-cattle, carts, and implements; and for

the provisions consumed before the first crops were harvested. They will thus reduce the capital actually advanced to a less sum than will be covered by the annual future rent; for the seven acres of land, which cost them originally less than four pounds per acre, will produce a yearly rent of more than that sum.

It is the object of the society to render each family independent of the institution, and subject to no other controul than that which may arise from a feeling of their own advancing prosperity: for this purpose, a graduated scale of stimulants have been introduced, which are stated to have produced most beneficial effects. Every year medals are distributed among the most meritorious colonists, which are worn at their button—they are of copper, silver, and gold. The first is given to those who have shown most diligence and good conduct, and entitles them to leave the colony on a Sunday without asking permission. The silver medal is given to such as can show that they have made some considerable savings beforehand, and entitles them, as well on working days, at the intervals of labour, as on Sundays, to go beyond the colony without asking permission. The gold medal is given to such as can show a clear yearly income from their work of 250 guilders, and releases them from all the restraints which the regulations of the colony have appointed. They become free tenants thenceforward. These distinctions and privileges may, however, be forfeited, or may be suspended for one, or for several days, by such subsequent misconduct as, in the judgment of the director in chief, may merit that privation. The appointed punishments for offences are well graduated. Smaller faults receive reprimands, or deductions from the earnings of the offender, within the colony. Graver offences are judged by a tribunal, at the neighbouring town of Steenwyk, and are punished with imprisonment or with banishment to another colony, not far distant, at Omme-Schanze, where, within the walls, they are kept to hard labour. The greatest circumspection is enjoined on the quarter-mas.

ters and section-masters, in watching over the moral conduct and decorous behaviour of the people whilst at work. They must reprove them for any indecent or profane words or actions, and check every incipient symptom of wrangling, quarrelling, and fighting, and especially guard against the use of ardent spirits, to which the lower classes, induced by low prices, in Holland are too much addicted.

When the society had proceeded with their plan a sufficient length of time to ascertain its stability, and were satisfied of the correctness of the calculations on which it was founded, they naturally wished to extend its influence. Though the liberal contributions and annual subscriptions had been judiciously dispensed, and the security they possessed was more than equal in value to the money that had been expended, yet the returns were necessarily slow from the whole, and from the several farms could only be obtained in the shape of annual rent. Their stocks of horses, cows, and sheep, as well as of carts and the other implements of husbandry, though regularly increasing in number and value, could not, without checking the progress of the plan, be converted into money. It became thus necessary, with the views entertained of great extension, that a capital should be procured commensurate with such extension of plan. It was, therefore, resolved to raise by loans, to be repaid by instalments in sixteen years, sums equal to the outfit of as many families as should be established in the colony.

As each family required 1700 guilders to settle it; and as three families, one of which consisted of six orphans or foundlings, could be advantageously classed into one group, the loans were limited to 5100 guilders, or £425 sterling. These might be advanced by individuals, by charitable corporations, by communes, or by the king, either in his individual character, or by the government, of which he is the head. The bodies or persons contributing the before-mentioned sum were to have the privilege of sending to the colony three families, two of them to consist of six paupers each, and the third, of six orphans or

foundlings, not under six years of age, with a man and woman, a married couple if practicable; or if that cannot be done, a woman only, to manage for the children. For the maintenance of each child, the society is to be paid 60 guilders, or 5*l.*, yearly, which is to cover the whole expense, including their education, and religious and moral instruction. This sum is considerably less than the amount of what is expended in the orphan-houses and poor-houses of the communes, where it costs from 114 to 120 guilders yearly, for each child. The advantage to the communes is thus the saving nearly half the expense of supporting six children, and the whole of that of the twelve paupers. The society looks to be reimbursed by the annual excess of the labour of the two pauper families, and by the stipend paid by the communes, as well as by the sale of the linen and woollen cloth made in the first year of settlement by the whole three families. Without entering into the details, which are necessarily very prolix and minute, it may here be considered that the annual excess of the profits of the three families combined will amount to 440 guilders. The wool and flax, bought in the outfit for three families, are charged in that estimate at 200 guilders for each, or 600 guilders. This, saying nothing of any profit on the spinning, is assumed to be received in the course of the first year. The mode in which the loan is to be extinguished, will then be the following:—

		Guild.	Cents.
Debt or amount of the loan		5100	0
Interest at the rate of 5½ per cent.		280	50
		5380	50
Produce of linen and woollen yarn	600		
Profits, being excess of labour beyond expenditure and board of orphans	440		
		1040	0
Debt remains at the end of the first year		3340	50
Interest at the rate of 5½ per cent.		238	73
		3579	23
Profits of labour and board of orphans		440	
Debt at the end of the second year		4139	23
Carried forward		4139	23

	Guild.	Cents.
Brought forward . .	4139	23
Interest at 5½ per cent.	227	66
	4366	89
Profit of labour and board of orphans	440	00
Debt at the end of the third year	3926	89
Interest at 5½ per cent.	215	89
	4142	78
Profit of labour and board of orphans	440	00
Debt at the end of the fourth year	3702	78
Interest at the rate of 5½ per cent.	203	66
	3906	44
Profit of labour and board of orphans	440	00
Debt at the end of the fifth year	3466	44
Interest at 5½ per cent.	190	66
	3657	10
Profit and board of orphans	440	0
Debt at the end of the sixth year	3217	10

Without carrying on this calculation to the end of the term, it is clear that, if the data are correct, the whole debt must be extinguished at the end of the sixteenth year, and leave a small surplus of 169 guilders 73 cents. The society will then be in the unincumbered possession of three farms, containing twenty-one acres of highly improved land, yielding a rent at the rate of twelve shillings per acre, with the stock and implements, whilst the commune will have been disemburdened of twelve paupers, and the kingdom have half that number of the advancing generation instructed in their moral and religious duties, and taught to acquire habits of industry, parsimony, and independence. As far as this plan shall succeed, it must be the harbinger of vast improvement among many children who would, without it, probably, have become a burden or an annoyance to society.

The communes, or individuals who contribute to this loan, are to have the power at all future times of keeping up the number of three households on the estate of the society, and thus the relief they obtain by the loan is a perpetual resource

which may be made available for ever, against the evils of vagabondism and pauperism.

It is not to be wondered at that such a plan, after the success which had attended the first operation had been ascertained, should have received extensive support and considerable enlargement. Commissioners were appointed by the government to examine all the details and to make a report. The individuals nominated for this purpose were possessed of activity and discrimination; and, on their report being made, the government extended effectual aid, and many communes and several charitable individuals embraced the proposal, and have had their commensurate number of paupers and orphans admitted into the colony. The colonists have been increased. The last statistical return before us, is up to the end of the year 1825, when the whole number at the settlement of Fredericks Oord amounted to 6778 individuals, including those at Omme-Schanze, under more rigid controul, and comprehending 2174 orphans and foundlings. Within the last two years very considerable additions have been made to the loans, and the numbers admitted to the colonies. It was stated to the writer of these observations, when in Holland, that the whole of those in the kingdom, under this system, already amounted to more than 20,000 persons.

All the transactions of this society are not only scrutinized at regular periods by special committees from its own body, but all the proceedings are published quarterly in a Journal (the Star), with clear statements of the accounts. From these, as far as they have been examined by the writer, being only to the end of the year 1825, it may be fairly inferred, that they are proceeding on a secure plan, such as may render permanent and capable of almost unlimited extension, this benevolent attempt to render even indigence beneficial to the community.

We have already adverted to the teaching, and to the religious instruction of the colonists. One of the first principles of the institution was to provide due means for these objects.

Churches are provided for the Catholics, Lutherans, and Reformed Communions, and a regular attendance on the services of the confession to which the colonists belong is strictly enforced on all of them; even for the Jews a provision is made in this respect. According to the representations of the clergy, who complained bitterly of the utter ignorance of every religious idea or feeling among those who were first fixed in the colony, but especially among the young, the improvement has been so great as to be highly gratifying to their feelings. The Catholics remark much more numerous attendants at the confessional than formerly, and the Protestants have the pleasure to find that a much larger and an increasing proportion of the adherents to their respective modes of worship now attend at the sacrament, than at the first establishment of the colony. The latter remark, too, a growing disposition in the poor to appropriate a part of their small spare money to the purchase of bibles and other religious books, which is encouraged by the society. Those who have such books must satisfy the quartermaster, at his periodical inspection of their households, that they are taken proper care of. The pious instructions, combined with the disciplined constant employment that is demanded, appear to have had a most beneficial influence on the moral habits of all the paupers, but more especially of the younger portions of them.

School-houses are built, and regular masters provided. As the young are occupied a part of their time in the details of cultivation, or in spinning, the hours devoted to their education are chosen so as best to combine both objects. The smaller boys and girls are taught together, but soon separated by meeting at different hours. During the winter, more hours are devoted to education than in the summer, when the fields require more labour. Commonly two hours in the morning and two in the afternoon are passed in the school. From the delicate circumstances in which the kingdom of the Netherlands was placed at its first establishment, owing to the religious difference between the two parts of which it is com-

posed, it has been deemed wise to keep education distinct from spiritual tuition, and hence the school-books are all of a description which none can disapprove, however the catholic or protestant adherents may regret that their respective peculiarities of doctrine are not to be found in them*. The teachers, one of them from Hofwyl, have introduced the system of instruction adopted by Fellenburg.

In the introduction and arrangement of the plan here sketched, economy has been closely observed, and the salaries of all the officers of the establishment are fixed at very low rates. Thus the adjutant director of the first class is paid 1800 guilders yearly, and of the second class 1000, with dwellings. The sub-directors receive from 360 to 500 according to the number of families under their care; these have also houses provided for them. The quarter-master receives from 5 to 6 guilders weekly, and as his family can work with him in spinning and weaving they also earn something; when he has performed the duties of his station in a satisfactory manner, during a fixed number of years, two guilders per week are added to his pay. The section-master receives one shilling a day, and each of these is furnished with a dwelling. A book-keeper and his assistant are paid 12 guilders between them weekly. Each of the colonists may be gradually raised to these offices when he has shown sufficient proofs of his knowledge, diligence, and good conduct.

By this very economical arrangement the whole expense of the administration of the affairs of the establishment, including the salaries to the clergyman and the schoolmasters, amounts only to 25 guilders for each family, or about 6*s*. 6*d*. for each individual colonist. That sum must be very far below the

* A list of the books introduced, with the prices of them, will show both the spirit meant to be infused into the young, and the economy which is applied to this as to every other object. Most of the books have the attraction of wood engravings in them. ABC books, ½d.—Erste Oenfeningen in het Lezen, or First Exercises in Reading, 2½d.—Mother Anna and her Infants, 4d.—Grandmother and her Grandchildren, 3d.—Father Jacob and his Children, 4d—Children's Friend, 3d.—Explanation of our Saviour's Sermon on the Mount, 8d.—An Introduction to Agriculture, 11d.

value of the additional labour gained by the system of strict discipline and minute inspection which these officers are appointed to execute.

General Van den Bosch, the Director-General, has received no emolument from his office, but is content with what is derived from his military rank, his performance of some of the more arduous duties of which are dispensed with. No doubt much of the success of the institution here sketched has been owing to the active intelligence, the unbounded philanthropy, the unshaken firmness, and incorruptible integrity of that distinguished individual. The two committees are, however, entitled to a large share of praise for the confidence they have reposed in him, and for the support they have afforded him when satisfied of the wisdom and practicability of his plans.

The rescuing of many thousand paupers from a state of misery, the preserving thousands of young persons from the vicious and criminal paths into which they were exposed to be seduced, must be of vast advantage to the whole nation. But the experiment, by the emulation it has kindled to pursue the same steps in the other portions of the kingdom, presents prospects of undefined and almosts unlimited advantage. In the southern provinces similar plans have been formed and put in practice. A colony formed at Wortel near Antwerp, on a barren heath in 1822, had at the end of 1823 one hundred and twenty-five farms already in cultivation, when the society which had founded it made a contract with the government to maintain one thousand mendicants during sixteen years, at the rate of 35 guilders per year: these, mostly beggars and idlers from Brussels, entered in the course of that year. Though the provision of manure at the commencement was but small, and the summer of 1826 was one of great drought, yet the acres that were cultivated produced in that year a value fully equal, in some instances, to the cost of bringing them into cultivation. This is one of those plans stimulated by the example, and regulated by the experiment, exhibited at Fredericks Oord. Its

chief director is Captain Van den Bosch, a brother of the General.

In other parts of the southern provinces similar proceedings are advancing, and we have heard of one individual, possessing a portion of heath land near Bruges, who has lately made a contract with government to take a thousand mendicants on the terms agreed on with the society who established Wortel. It seems not improbable that the spirit thus actively created and wisely directed, may be the means of lessening in a great degree the evils of pauperism and inactivity, and of checking the alarming progress of juvenile degradation.

If the observations here made shall be the means of bringing the important subject under the notice of some active, influential, and practical philanthropists, who will contemplate the best means of applying them to the local and legal circumstances of the country, and will arrange any plan by which the experiment may be tried, the collector of them would most cheerfully contribute any aid in his power in co-operation with such persons.

If the attempt should be successful, and general emulation to pursue it be excited, the consequences may, in a few years, be the means of producing benefits, the extent of which the most sanguine calculation could scarcely beforehand anticipate.

It is impossible to look at the condition of Ireland and not to desire earnestly that some plan similar to what is here sketched, but accommodated to the state of society, and to the character of the peasantry of that part of the Empire, could be tried. If successful, it might tend to remove the evil created by a population too numerous to be supplied with full employment, without the application of capital, which at present flows reluctantly into that particular channel.

POSTSCRIPT.

When the preceding sheets had been written, I obtained a sight of a publication from Edinburgh on the same subject, entitled "An Account of the Poor Colonies and Agricultural Work-Houses of the Benevolent Society of Holland." The facts are very justly represented as taken from the work of my friend Baron de Keverburg, and other accurate authorities, and aided by the author's personal remarks on examining the establishments. There is a want of method in the work, which I fear may operate to make it less extensively known, and, consequently, less beneficial than it deserves to be.

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